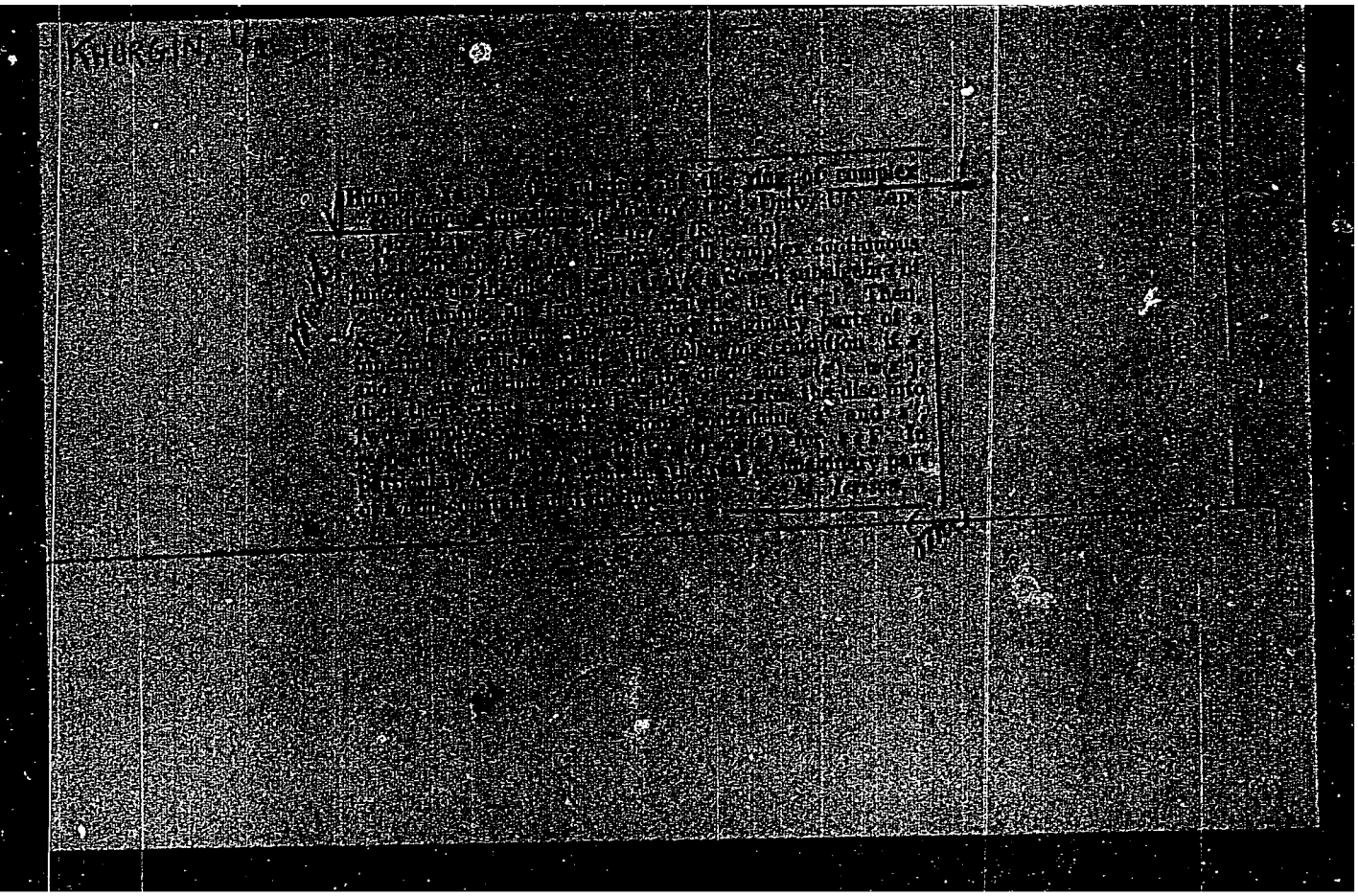


KHURGIN, Ya.I.

"Spectra and analysis." A. A. Kharkevich. Reviewed by IA. I. Khurgin. Usp.mat.nauk. 10 no.1:239-242 '55 (MLRA 8:6)
(Spectrum analysis)(Mathematical physics)

Khurgin, Ya.I.

109-4-1/20

AUTHOR: Khurgin, Ya.I.

TITLE: A Class of Random Pulse Processes. (Ob odnom klasse impulsnykh sluchaynykh protsessov)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol.2, No.4, pp. 371 - 379 (USSR)

ABSTRACT: The class of processes considered in the paper is a train of identical pulses, whose leading edges appear at random. It is assumed that the average spacing between the pulses is T and that the train is in the steady state, i.e. it commenced at the time $t = -\infty$. Intervals between the leading edges of neighbouring pulses are governed by a probability density distribution function $p(t)$ [$p(t) \equiv 0$ at $t = 0$], such that the instant of the appearance of the leading edge of a successive pulse is dependent only on the instant of the appearance of a preceding pulse. A quantity $g(t_2/t_1)$ is introduced such that $g(t_2/t_1)dt_2$ is the conditional probability of the appearance of a pulse in an interval t_2, $t_2 + dt_2$, if the preceding pulse commenced at time t_1; $g(t_2/t_1)$ is referred to as the conditional probability density of the pulse train (or series). It is shown that the relationship between $p(t)$ and $g(t_2 = t/t_1 = 0) = g(t/0) = g_0(t)$ is given by:

Card 1/5

KHURGIN, Ya. I.

PHASE I BOOK EXPLOITATION SOV/5921

Soveshchaniye po teorii veroyatnostey i matematicheskoy statistike, Yerevan, 1958

Trudy Vsesoyuznogo soveshchaniya po teorii veroyatnostey i matematicheskoy statistike, Yerevan, 19-25 sentyabrya 1958 g. (All-Union Conference on the Theory of Probability and Mathematical Statistics. Held in Yerevan 19-25 September, 1958. Transactions) Yerevan, Izd-vo AN ArmSSR, 1960. 291 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: Akademiya nauk Armyanskoy SSR.

Editorial Staff: G.A. Abgaryanyan, R.V. Gamkrelidze, Ye.B. Dynkin, Yu.V. Linnik and S. Kh. Tumanyan; Ed. of Publishing House: A.G. Sikmel; Tech. Ed.: M.A. Kaplanyan.

PURPOSE: The book is intended for mathematicians.

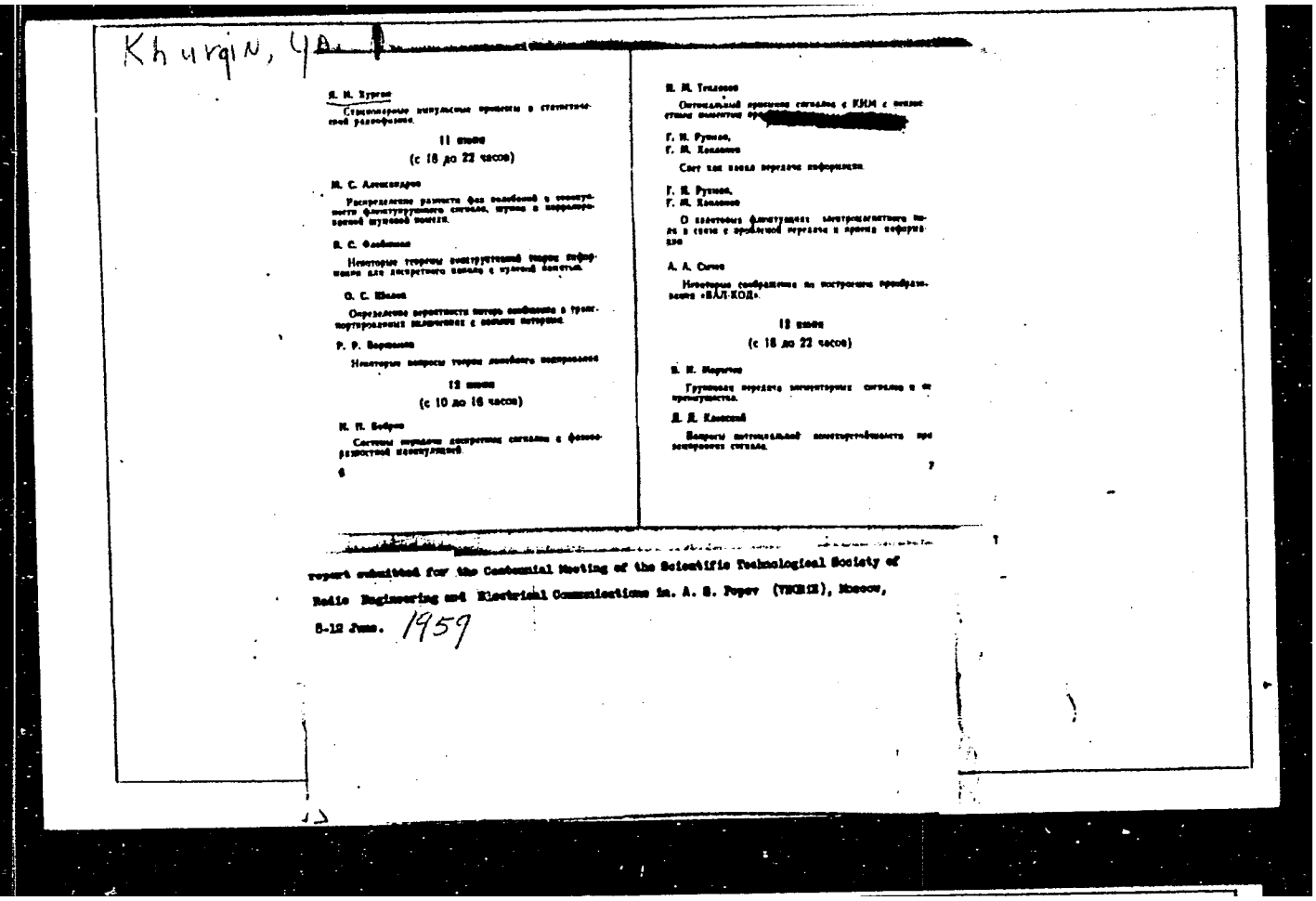
COVERAGE: The book contains 41 articles submitted to the Conference and dealing with the theory of probability and mathematical statistics. Some of the articles are the papers read at the Conference and edited for publication, while others outline the theses of papers which appeared or are scheduled to appear, wholly or in part, in other publications; in some cases, such publications are quoted. A list of the papers whose contents were published elsewhere is included and the places of publication are indicated. Individual articles examine theories of mass service, spectral instruments, numbers, games, and certain functions, and discuss the theorems of Shannon, Markov's chains, and certain processes, quantities, and functions. Such items as the method of least squares, the stochastic, Markov's and diffusion processes, measures and their applications, a scheme of Bernoulli experiments, Markov-type random field, visible distribution of stars, Brownian motion, capacity of radio channels, and defective products are considered. No personalities are mentioned. References accompany some of the articles.

Card 6/8

KHURGIN, Ya.I.

Spectrum of random pulse processes with independent intervals and spectrum line width. Nauch.dokl.vys.shkoly; radiotekh. i elektron.no.1:96-101 '58. (MIRA 12:1)

1. Kafedra radiofiziki Moskovskogo fiziko-tekhnicheskogo instituta.
(Oscillations) (Probabilities)



Khurgin, Ya.

Я. Н. Хургин

Стохастические импульсные процессы в статистической радиофизике.

11 июня

(с 18 до 22 часов)

М. С. Александров

Распределение размаха фаз колебаний в конгломерате флуктуирующего сигнала, шума и гармонической шумовой помехи.

В. С. Фалькович

Некоторые теоремы конструктивной теории информации для дискретного канала с шумовой памятью.

О. С. Шилов

Определение вероятности потери информации в транспортированных включениях с малыми потерями.

Р. Р. Варшамов

Некоторые вопросы теории линейного кодирования

12 июня

(с 10 до 16 часов)

Н. П. Бобров

Системы передачи дискретных сигналов с фазоразностной модуляцией.

6

В. И. Тихонов

Оптимальный прием сигнала с КИМ с линейной [redacted]

Г. Н. Румянцев,
Г. М. Колосков

Сеет как канал передачи информации.

Г. Н. Румянцев,
Г. М. Колосков

О влиянии флуктуаций электромагнитного поля в среде с дробной передачи и приема информации

А. А. Сычев

Некоторые соображения по построению преобразования «ВАЛ-КОД».

13 июня

(с 16 до 22 часов)

Б. Н. Наумчик

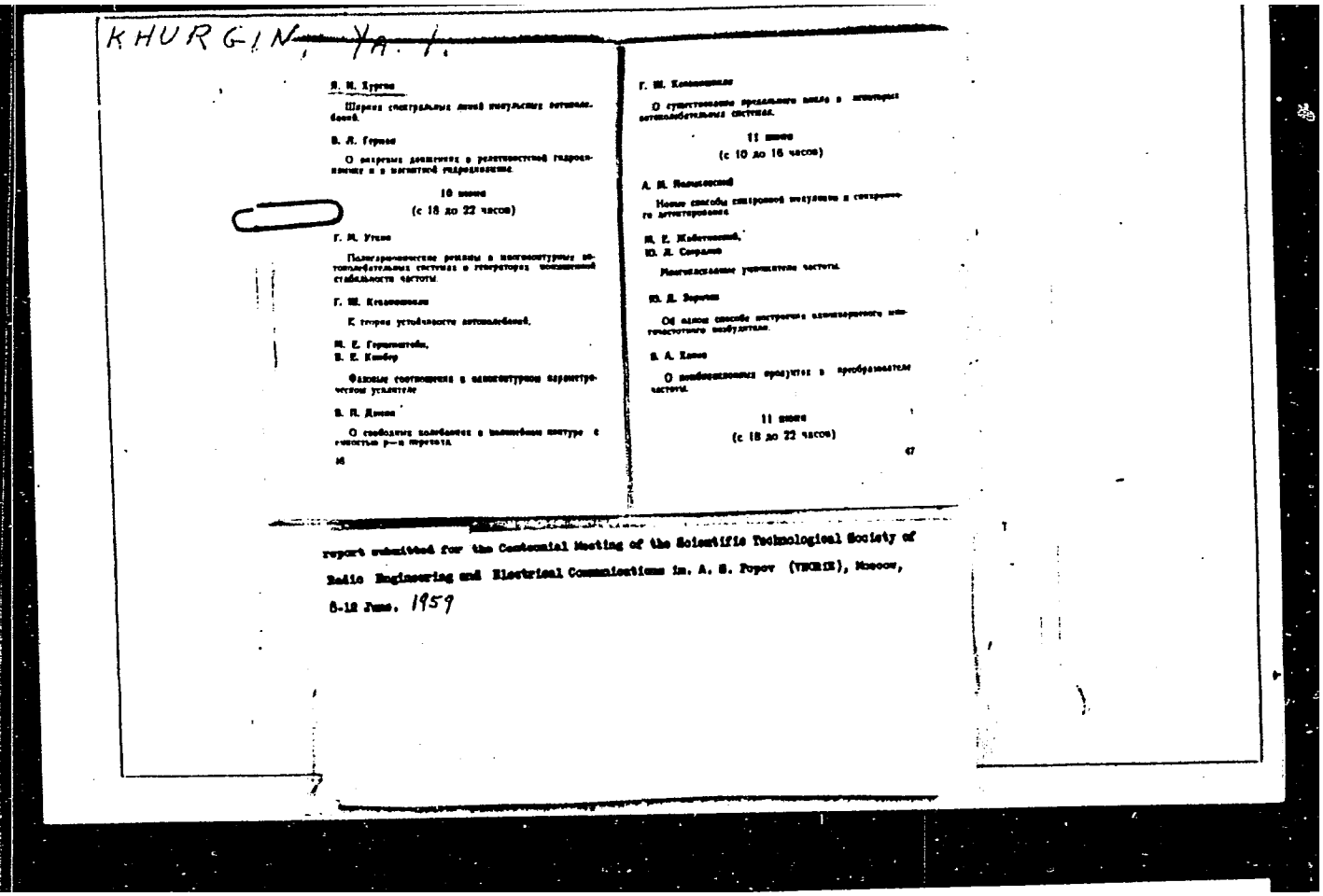
Групповая передача многоканальных сигналов и их преимущества.

Д. Д. Кловский

Вопросы оптимальной помехоустойчивости при кодированных сигналах.

7

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNIIRE), Moscow, 8-12 June. 1959



KHURGIN, Ya. I.

Я. И. Хургин

Широкие спектральные линии импульсных потенциалов.

В. А. Герцог

О запросах документов в релятивистской гидродинамике и в магнитной гидродинамике.

10 июня
(с 18 до 22 часов)

Г. М. Утков

Полупроводниковые резисторы в контурах автоподстроечных систем и генераторов повышенной стабильности частоты.

Г. Ш. Клопоцкий

К теории устойчивости автоколебаний.

М. Е. Гершинтейн,
В. Е. Кондор

Фазовые соотношения в однотактном параметрическом усилителе.

В. Н. Дикин

О свободных колебаниях в колебательном контуре с емкостью р—п перехода.

46

Г. Ш. Клопоцкий

О существовании предельного цикла в импульсных автоколебательных системах.

11 июня
(с 10 до 16 часов)

А. М. Кальмовский

Новые способы синхронной импульсной и синусоидальной детектировки.

М. Е. Жаботинский,
Ю. А. Сорокин

Многократное умножение частоты.

Ю. А. Зорич

Об одном способе построения однополупериодного импульсного выпрямителя.

В. А. Ленов

О колебательных процессах в преобразователях частоты.

11 июня
(с 18 до 22 часов)

47

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (NTORIE), Moscow, 8-12 June, 1959

32887
S/044/61/000/012/043/054
C111/C222

16.7000 6.9000

AUTHOR: Khurgin, Ya. I.

TITLE: Some properties of random impulse processes

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1961, 32, abstract 12V192. ("Tr. Vses. soveshchaniya po teorii vercyatnostey i matem. statistike, 1958". Yerevan, AN Arm SSR, 1960, 72-78)

4

TEXT: The importance of random impulse processes for various questions in radio technics is pointed out. Of particular interest in examining such processes are the statistical characteristics of the behavior along the time axis: the characteristics of the pulse-scheme, the intervals between times of impulse appearances, the probabilities of the impulse appering in cartain intervals, etc. It is suggested to consider random impulse processes in which the form of all impulses are derived from a given function h(t) by a transformation with random parameters, e. g.

$h_k(t) = \xi_k h\left(\frac{t-\theta_k}{\tau_k}\right)$ where ξ_k is the amplitude of the k-th impulse, τ_k is

Card 1/2

Some properties of random impulse . . .

4

the length and θ_k is the time of its appearance. The author further examines the case where the times of the impulse appearance form a flow with limited after-effects, the probability-theoretical characteristics of which can easily be reduced to integral equations.

[Abstracter's note: Complete translation.]

KHURGIN, Ya.I., doktor fiz.-mat.nauk

Information and coding. Nauka i zhizn' 27 no.12:24-30 D '60.
(MIRA 13:12)

(Information theory)

KHURGIN, Yakov Isayevich; YAKOVLEV, Vitaliy Pavlovich; KOZLOV, V.D., red.; LIKHACHEVA, L.V., tekhn.red.

[Methods of the theory of entire functions in radio physics, communication theory, and optics] Metody teorii tselykh funktsii v radiofizike, teorii sviazi i optike. Moskva, Gos. izd-vo fiziko-matem.lit-ry, 1962. 220 p. (MIRA 15:5)
(Functions, Entire)

DOBRUSZYN, R.L. [Dobrushin, R.L.]; CHURGIN, J.I. [Khurgin, Ya I.]
(Moskwa)

Problems of the information theory. Rocz wiad matem 6
no.2:205-216 '63.

ACCESSION NR: AP4016506 S/0020/64/154/005/1082/1083

AUTHORS: Guberman, Sh. A.; Izvekova, M.L.; Kholin, A.I.; Khurgin, Ya. I.

TITLE: The use of an algorithmic method of discerning shapes in the solution of problems in production-connected geophysics

SOURCE: AN SSSR. Doklady*, v. 154, no. 5, 1964, 1082-1083

TOPIC TAGS: exploratory well, mineral, geophysical method, rock strata, electric resistance, cybernetics, petroleum, gas, algorithm, porosity, porosity classification, physical property, oil saturation, sandstone, limestone

ABSTRACT: The investigation of exploratory wells by geophysical methods includes such operations as rock crushing on the basic of lithological differences, the classification of mineral-bearing rock strata and the correlation of such strata on the basic of geophysical data for the purpose of solving geological and production programs. It is very useful, in this connection, to make use

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ACCESSION NR: AP4016506

of cybernetics for the purpose of discerning various shapes under ground. This can be done by feeding the parameters of a number of different rock samples into a machine that will automatically separate, compare and classify them and identify the new types of materials. Such classification will include, for example, clay, sandstone, limestone; oil-, gas- and water-saturated rock; the various rock strata will also be classified on the basis of porosity and other physical properties. The algorithmic method of identification can be used not only for the qualitative solution of problems but also for the classification of rock strata on a quantitative basis, such as percentages of porosity, etc. "M.G. Latyshev and Ye. A. Neyman took an active part in the discussion of a number of questions raised in this article."

ASSOCIATION: Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni I. M. Gubkina) Moscow Institute of Petroleum Chemistry and Gas Industry)

SUBMITTED: 02Sep63 DATE ACQ: 12Mar64 ENCL: 00
SUB CODE: CH NO REF SOV: 000 OTHER: 000

Card 2/2

YAKHNIN, S.Z.; LAMBA, K.D.; KHURGIN, Ye.A., redaktor; KISLENKOVA, A.V., redaktor.

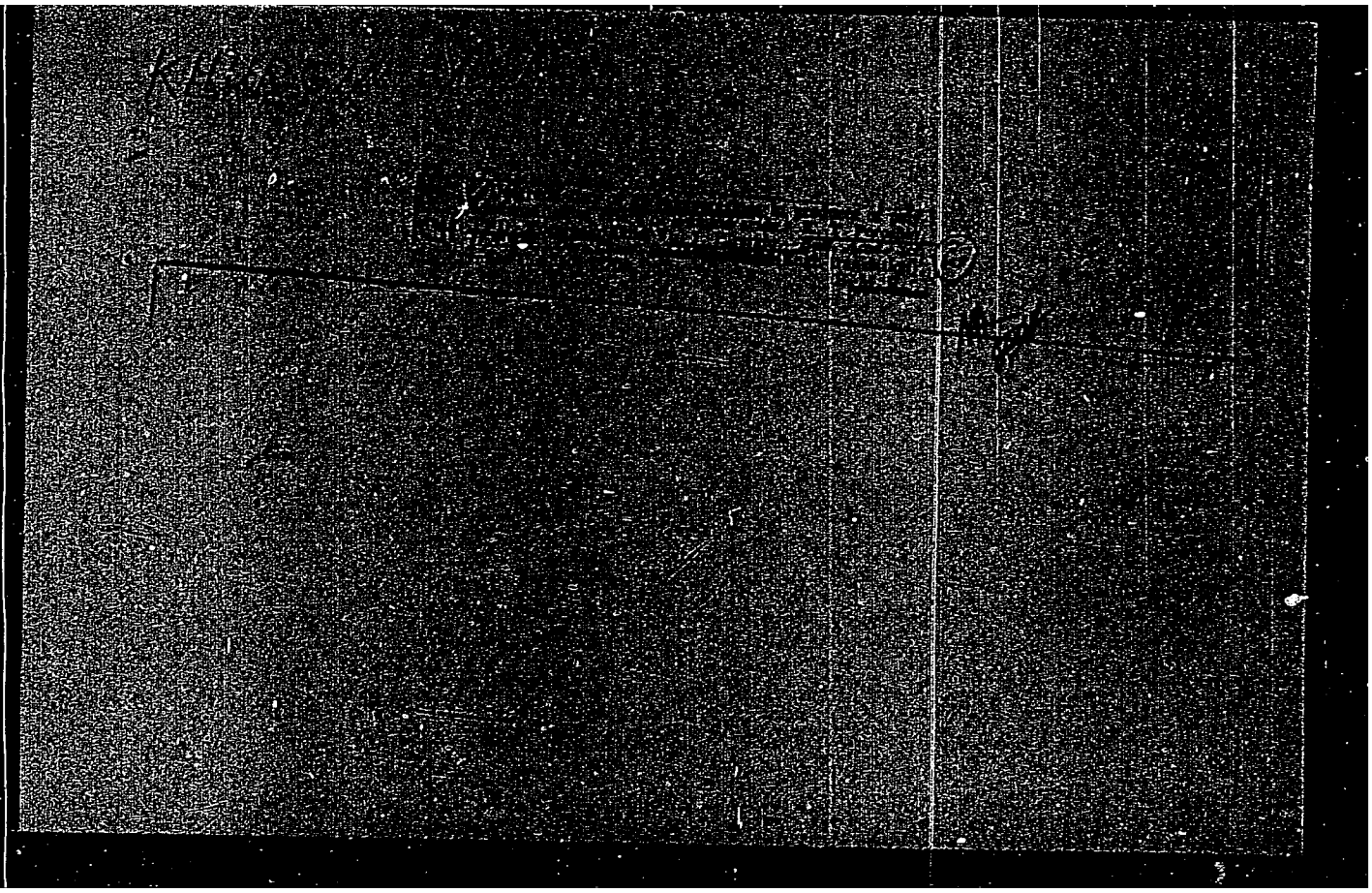
[Plastic materials and their use in railroad engineering] Plasticheskie massy i ikh primenenie na zheleznodorozhnom transporte. Moskva, Gos. transp. zhel-dor. izd-vo, 1954. 147 p. (MLRA 7:12)

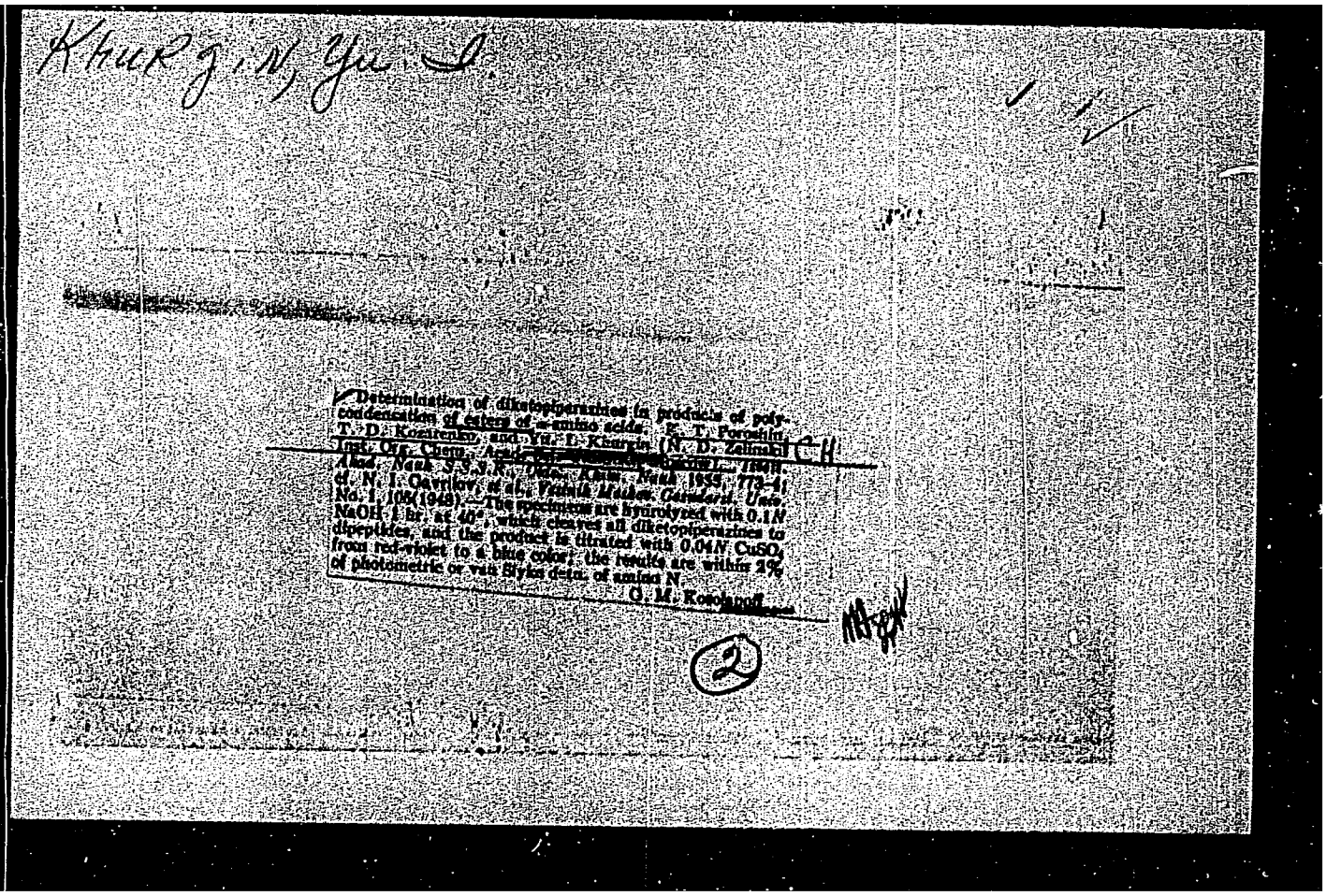
(Plastics) (Railroads--Equipment and supplies)

KHURGIN, Yu.D.; DMITRIEVA, M.G.

Relative rates of peptide bond formation by the aminolysis of p-nitrophenyl esters. Coll Cz Chem 27 no.9:2235-2236 S '62.

1. Institute of Organic Chemistry, Academy of Sciences of the U.S.S.R., Moscow.

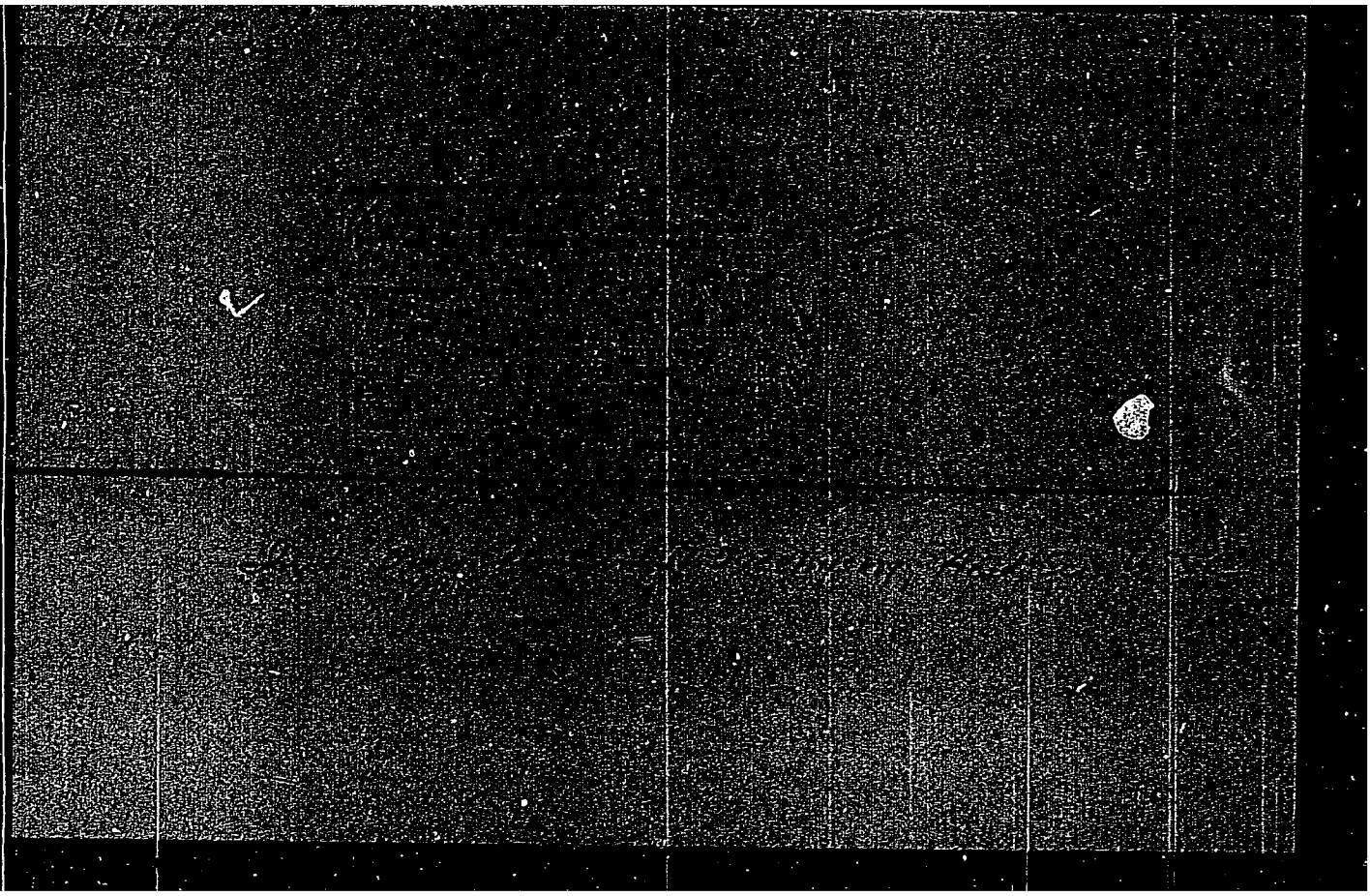




Khur J. N, Yu. I.

Determination of diketopiperazines in products of polycondensation of esters of α-amino acids. K. T. Poroshin, T. D. Kosarenko, and Yu. I. Khurgin (N. D. Zelinskii Inst. Org. Chem., Acad. Sci. U.S.S.R.). *Zhur. Obshchei Khim.* 1955, 773-4; cf. N. I. Gaverlov, *et al.*, *Vestnik Moskov. Gosudarst. Univ.* No. 1, 105(1948).—The specimens are hydrolyzed with 0.1*N* NaOH, 1 hr. at 40°, which cleaves all diketopiperazines to dipeptides, and the product is titrated with 0.04*N* $CuSO_4$ from red-violet to a blue color; the results are within 1% of photometric or van Slyke determ. of amino N.
G. M. Kosolapoff

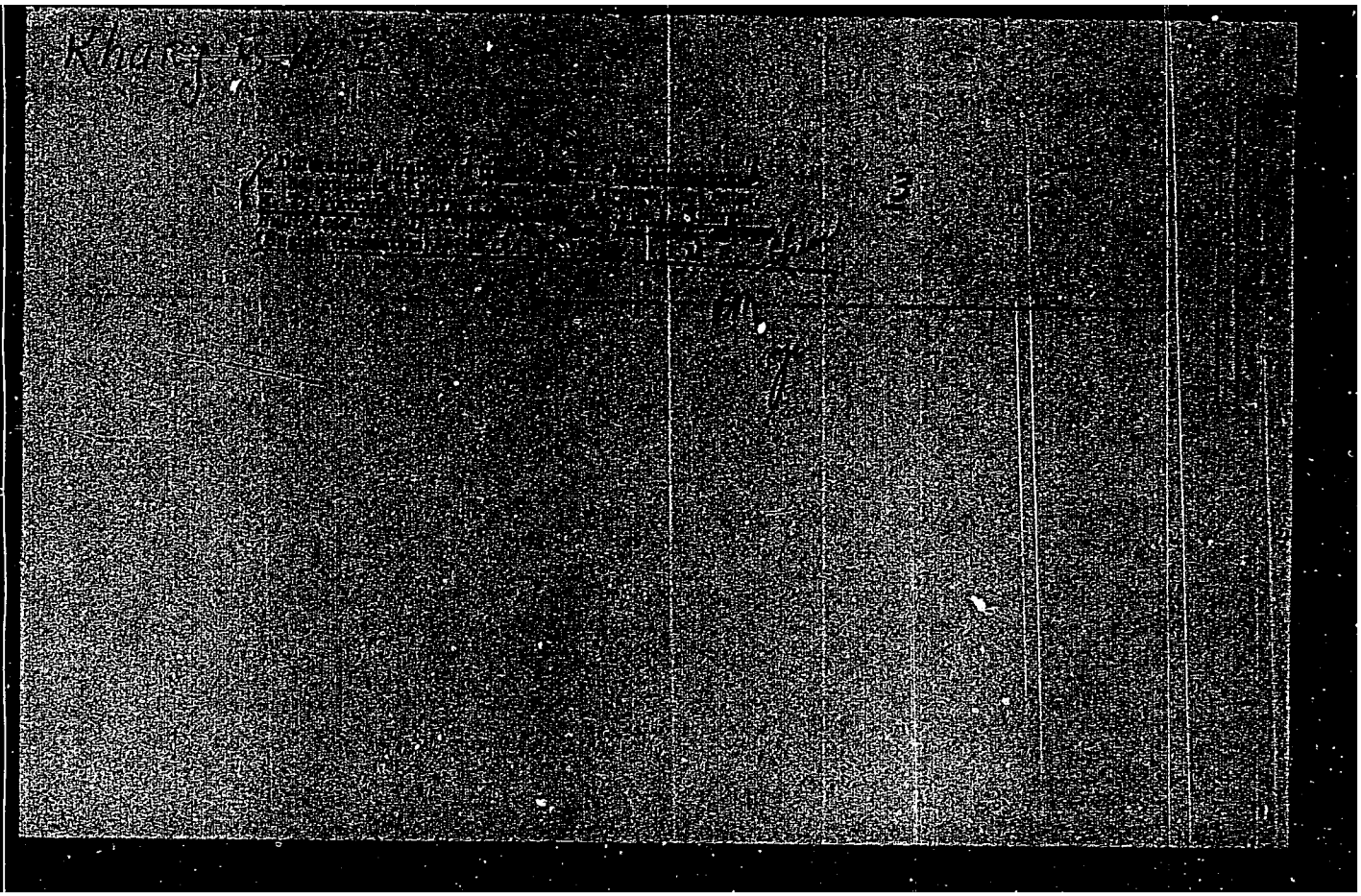
(2)

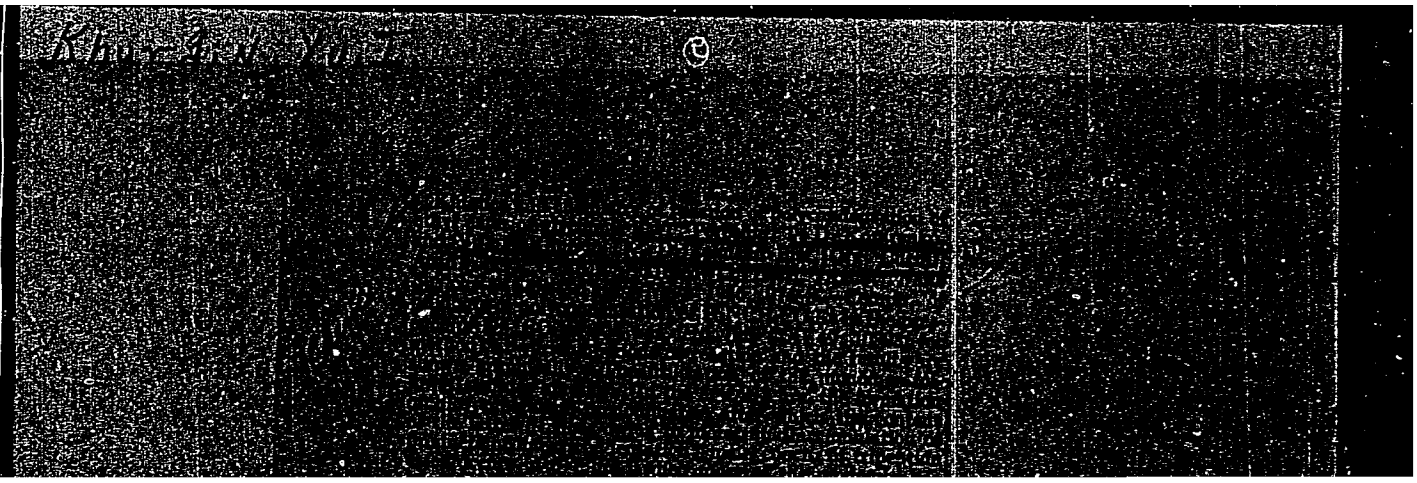


POROSHIN, K.T.; KOZARENKO, T.D.; KHURGIN, Yu.I.

Differential titration of tripeptides and diketopiperazines in the products of polycondensation of the ethyl ester of glycine. Izv. AN SSSR.Otd.khim.nauk no.5:626-628 My '56. (MLRA 9:9)

1.Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.
(Titration) (Glycine) (Condensation products (Chemistry))





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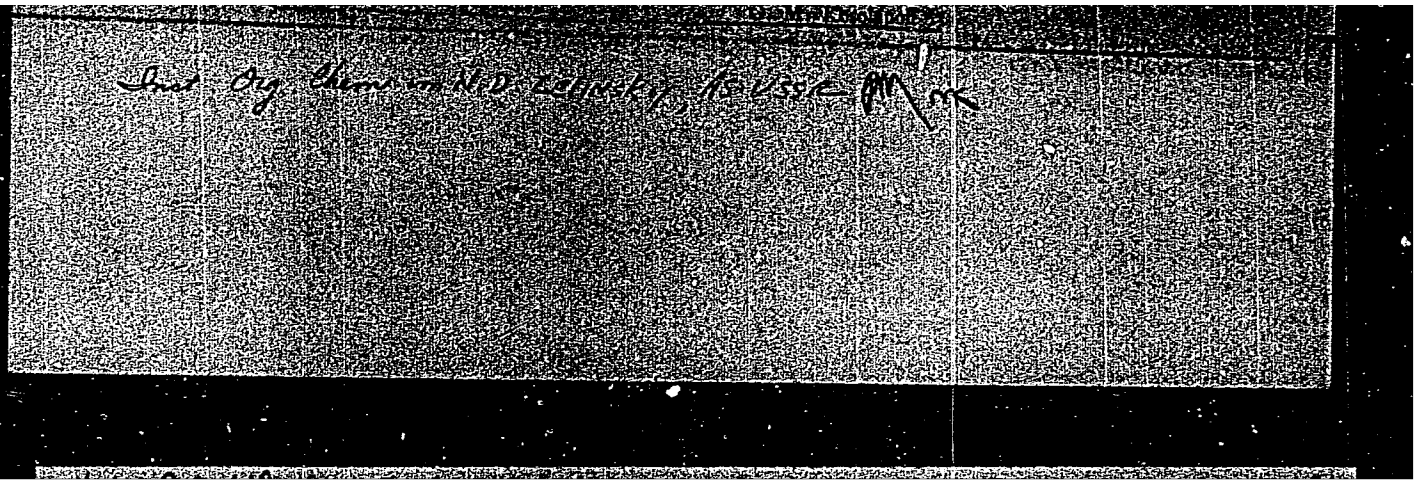
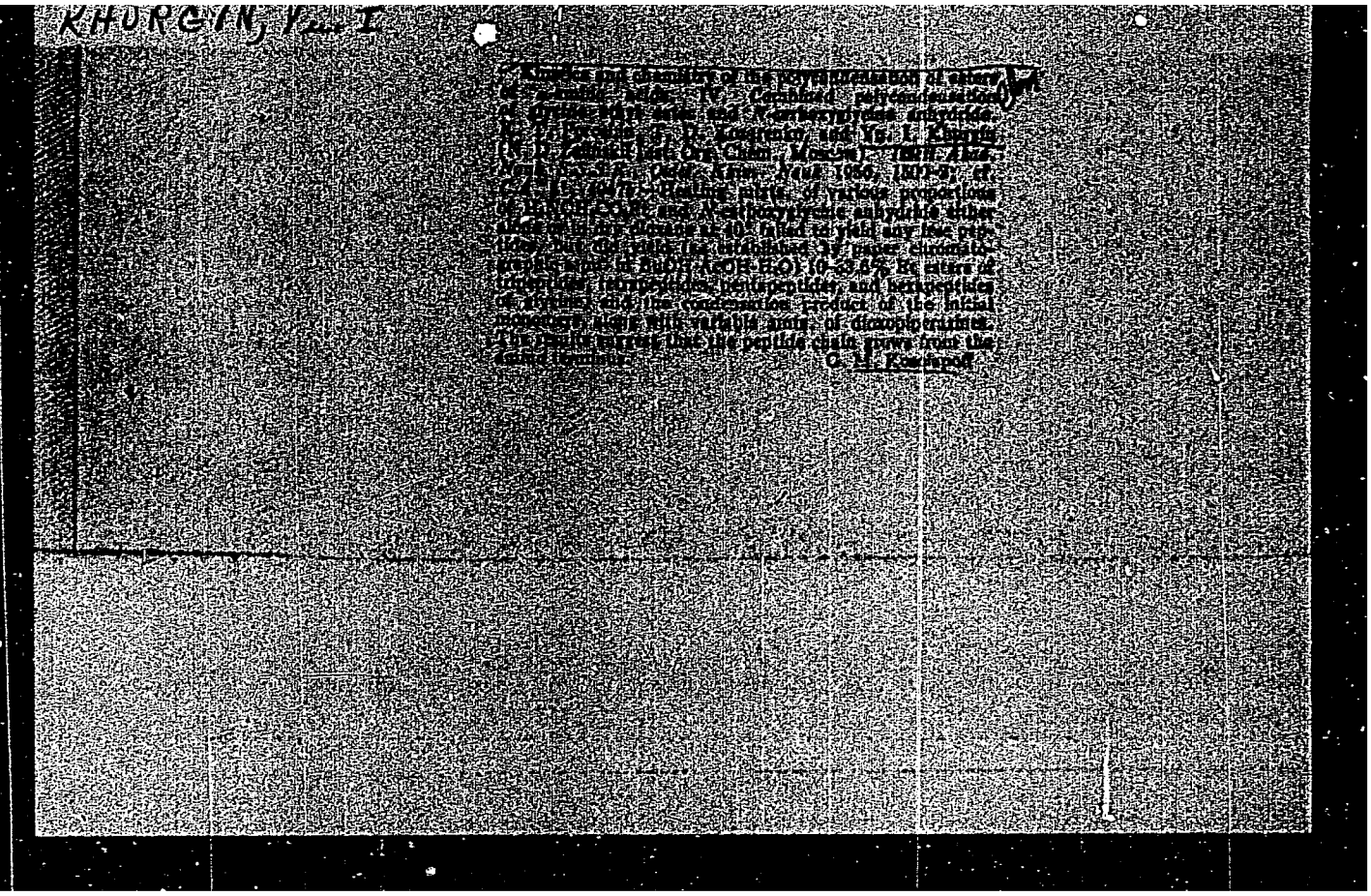



KHURGIN, Yu. I.

KHURGIN, Yu. I.

USSR/Organic Chemistry. Natural Substances and Their Synthetic Analogues. E-3

Abs Jour: Ref Zhur- Khimiya, No. 8, 1957, 27003.

Author : Poroshin, K.T., Kozarenko, T.D., Khurgin, Yu. I.

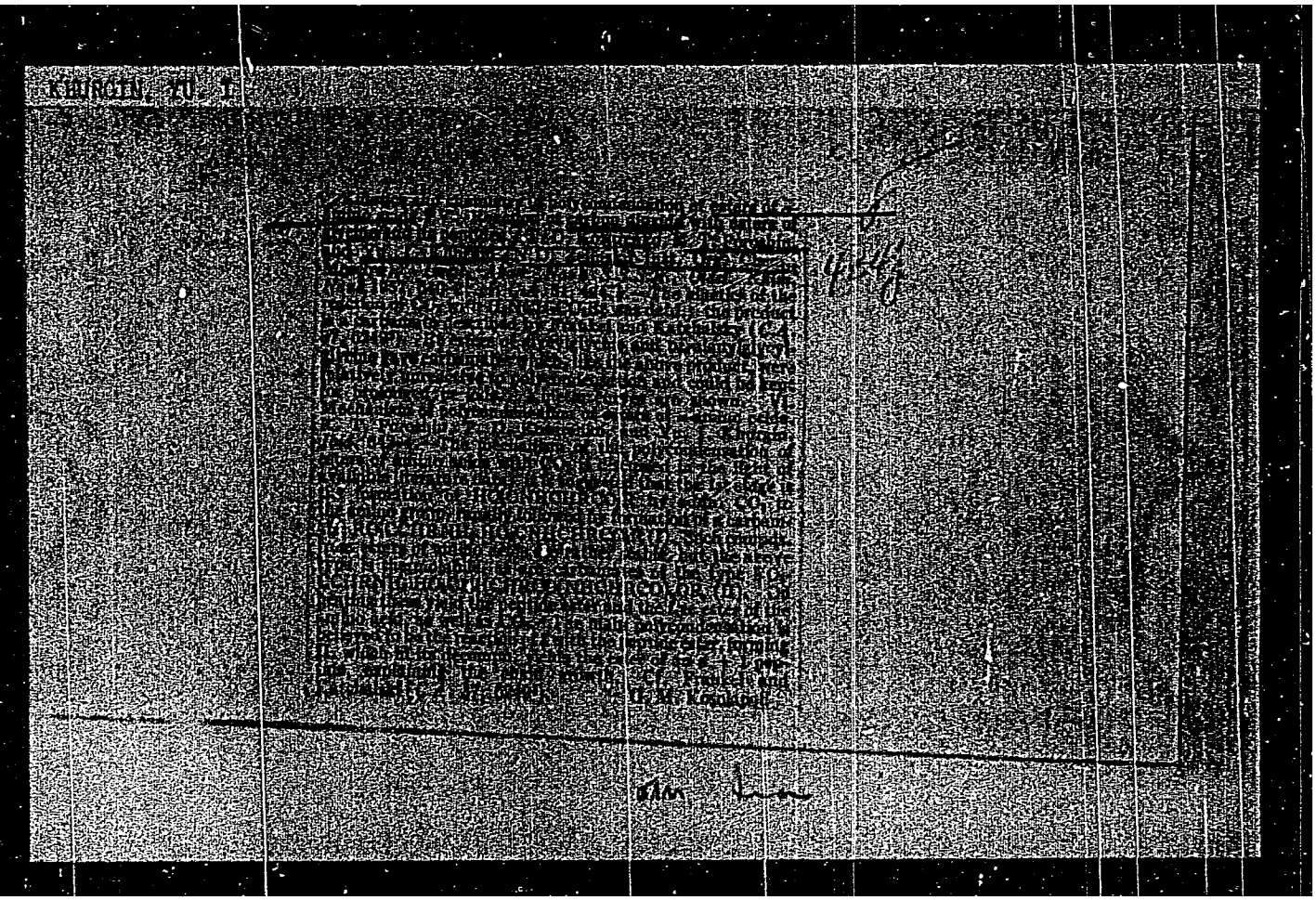
Inst : Academy of Sciences of USSR.- Inst. Org. Chem. im. Zelinskiy

Title : Mutual Conversions of Dipeptides and Their Anhydrides.

Orig Pub: Dokl. AN SSSR, 1956, 109, No. 2, 329 - 331.

Abstract: The stability of glycylglycine diketopiperazine (I) and alanylalanine diketopiperazine (II) in alkaline medium was studied. The hydrolysis constants for I and II, equal to pK_e 10.8 and 12.0 correspondingly, were computed from the measurements of hydrolysis depths of I and II at various pH in alkaline medium and 40°. The

Card 1/2



KHURGIN, Yu.I.; POROSHIN, K.T.; KOZARENKO, T.D.

Kinetics and polycondensation mechanism of esters of α-amino acids. Report No.2. Kinetics of polycondensation of glycine ethyl ester. Izv.AN SSSR. Otd.khim. nauk no.2:174-178 F '57. (MLRA 10:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR.

(Glycine) (Condensation products(Chemistry))

Khurgin, Yu. I.

USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topochemistry Catalisis. B-9

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3858

Author : T.D. Kozarenko, K.T. Poroshin, Yu. I. Khurgin.
Inst : Academy of Sciences of USSR, Section of Chemical Sciences.+
Title : Kinetics and Chemism of Polycondensation of α-Aminoacid Esters. 3. Influence of Carbon Dioxide on Composition of Polycondensation Products of Glycine Ethyl Ester.

Orig Pub: Izv. AN SSSR, Otd. Khim. n., 1957, No 5, 563-568.

Abstract: The composition of polycondensation products of glycine ethyl ester was studied at various ratios of the initial molar CO_2 concentrations and the monomer. The reaction product was analyzed after the monomer removal. The reaction product was treated with diethyl ester and was a thick mass containing a mixture of peptide ethyl esters. The obtained kinetic curves permit to establish 2, differing by speed, phases in the poly-

Card : 1/3

-9-

+ Inst. Organic Chemistry Zelinskiy

KHURGIN, U.I., Cand Chem Sci—(diss) "Polycondensation of ethyl ether of glycine." Kiev, 1954. 11 pp (Acad Sci USSR. Inst of Organic Chemistry im N.D. Zelinskiy), 110 copies (KL,22-58,103)

5(4), 5(3)

SOV/62-58-12-5/22

AUTHORS: Poroshin, K. T., Khurgin, Yu. I., Prokhorova, N. I.

TITLE: Kinetics and Chemism of the Polycondensation of α-Amino Acid Esters (Kinetika i khimizm polikondensatsii efirov α-amino-kislot) Communication 7: Kinetics of the Change in Composition of Polycondensation Products of Glycine Ethyl Ester in the Presence of N-Carboxy Glycine Anhydride (Soobshcheniye 7. Kinetika izmeneniya sostava produktov polikondensatsii etilovogo efira glitsina v prisutstvii angidrida N-karboksiglitsina)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 12, pp 1428-1434 (USSR)

ABSTRACT: In the present paper the results of investigations of the kinetics of a joint polycondensation of α-amino acid esters and N-carboxy-α-amino acid anhydride were shown by the example of glycine derivatives as well as of the effect of the relative anhydride concentration (A/E) on the composition of reaction products. The majority of the experiments was carried out with a 5% solution of the initial products in dioxane. It was found that with the content of initial products changing from 0.5 to 10% the amount of the solvent does not exercise any

Card 1/3

Kinetics and Chemism of the Polycondensation of α-Amino Acid Esters. Communication 7: Kinetics of the Change in Composition of Polycondensation Products of Glycine Ethyl Ester in the Presence of N-Carboxy Glycine Anhydride

essential effect on the course of the reaction. The qualitative composition of the polycondensation products was chromatographically investigated. The content of tetra and tripeptide fraction, and of diketo piperazine (Ref 20) was determined by the method of differential titration. The average degree of the polycondensation was determined by measuring the amino nitrogen according to the Van-Slyayk method. At the same time, experiments without solvents were carried out (in the block). In this case all processes developed more rapidly, they did, however, not show any qualitative differences. A comparison between the results obtained and those of the investigation of the polycondensation of glycine ethyl ester in the presence of carbon dioxide (Ref 19) shows that the rules governing this process are basically the same in the course of either process. However, intermediate products in the first polycondensation stage show differences: by the addition of CO_2 a symmetrical carbamate $R'OOC.CHR.NH_3^+.^-OOC.NH.CHR.COOR'$ is formed; by the initiating of N-carboxy amino acid anhydride an asymmetric

carbamate is formed $R'OOC.CHR.NH_3^+.\ ^-OOC.NH.CHR.CO.NH.CHR.COOR'$.

This apparently explains the observed differences in the velocity of the course of the process as well as in the distribution of reaction products in the individual stages.
There are 4 figures and 21 references, 5 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy Academy of Sciences USSR)

SUBMITTED: February 26, 1957

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000722420013-0"

AUTHORS: Kaverzneva, Ye. L., Doctor of Chemical Sciences, Khurgin, Yu. I. SOV/30-58-9-42/51

TITLE: Biologically Active Polymer Compounds (Biologicheski aktivnyye polimery)All-Union Conference on Highly Molecular Compounds (Vsesoyuznaya konferentsiya po vysokomolekulyarnym soyedineniyam).

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 9. pp. 111 - 113 (USSR)

ABSTRACT: The X All Union Conference took place in Moscow from June 11th to 13th. About 400 representatives of scientific institutions and colleges took part. In his opening-speech V.A.Kargin stressed the fact that, as there are structural analogies between natural and synthetic polymer compounds the task is set to bring about a controlled synthesis of models of biological objects. Further reports were delivered by: B.N.Tarusov, A.G.Pasynskiy on some peculiarities of biological textures.
G.M.Frank on the submicroscopic structure of some cell textures and muscle fibrils.
K.G.Ioffe gave particulars on the location of 18 amino-acids

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in the tyrosine bearing peptide.
M.I.Plekhan on some peculiarities concerning peptides.
Ye.D.Kaverzneva, F.V.Shmakova on the extraction of carbohydrate bearing peptide from egg albumin and the determination of its amino-acid content.
S.Ye.Bresler, S.Ya.Frenkel' consider the configuration of the individual globular protein to be metastable.
V.A.Belitser recommends to distinguish denaturation from some other slight modifications of structure.
V.I.Kasatochkin, R.A.Dulitskaya examined kinetics and thermodynamics of renaturation under pressure.
M.B.Kalmakarova on the modification of structure of complex proteins.
D.N.Shigorin, N.V.Mikhaylov examined the typical bands in infrared adsorption spectra.
N.S.Andreyeva recommended a new classification of the kinds of polypeptide chains according to structure.
M.I.Millionova, N.S.Andreyeva constructed a model of polymer glycyl-L-proline.

Biologically Active Polymer Compounds. All Union Conference on Highly Molecular Compounds. SOV/30-58-9-42/51

A.L.Zaydes on characteristics of various collagens.
Yu.A.Vladimirov, S.V.Konev on the mechanism of energy migration of light quanta in protein.
M.S.Volkova, A.G.Pasynskiy made use of the radiation method for molecular weight determination of protein.
G.V.Samsonov, R.B.Ponomareva, L.V.Dmitrenko gave particulars on the chromatographic purity determination of protein.
A.N.Belozerskiy spoke about the composition of nucleinic acids secreted by micro-organisms and plants.
V.S.Diskina, V.S.Tongur, D.M.Spitkovskiy spoke about the production of desoxy nucleoproteids by means of serum albumin and α-Chymotrypsin.
S.Ye.Bresler, Kh.M.Rubina on the part played by ribonucleic acid in the fermentative biosynthesis of protein.
M.A. Prokof'yev and Z.A. Shabarova mention experimentally obtained data on the synthesis of derivatives of amino acids with nucleotides and nucleosides.

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Biologically Active Polymer Compounds. All Union Conference on Highly Molecular Compounds. SOV/30-58-9-42/51

A.S. Spirin and L.P. Gavrilova reported on the results of investigations of ribonucleic acid of the tobacco mosaic virus. P.S. Vasil'yev spoke about the protein structures which are necessary for blood-transfusion. M.F. Shostakovskiy about how polyvinylpyrrolydone is obtained and how it is used as blood substitute. M.G. Brazhnikova dealt with the investigation of a large group of antibiotics of polypeptide type. The members of the conference stressed the necessity of the establishment of a special institute for protein research. It was recommended to promote the training of teams in the corresponding fields of science.

Card 4/4

POROSHIN, K.T.; PROKHOROVA, N.I.; KHURGIN, Yu.I.

Kinetics and mechanism of the polycondensation of α-amino acid esters and peptides. Part 10: Constitution of the products of interaction between the ethyl ester of d, l-alanine and N-carboxy-d, l-alanine anhydride. Vysokom. soed. 1 no.6:907-912 Je '59. (MIRA 12:10)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Alanine)

5(3)

SOV/62-59-5-34/40

AUTHORS: Khurgin, Yu. I., Poroshin, K. T., Kozarenko, T. D.

TITLE: The Kinetics of the Polycondensation of Glycine-ethyl Esters in the Presence of Its Carbamate (Kinetika polikondensatsii etilovogo efira glitsina v prisutstvii yego karbamata)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 5, pp 941-943 (USSR)

ABSTRACT: In the course of previous investigations of the kinetics of the polycondensation of esters of the α-amino acids it has been shown that the initiating effect of carbon dioxide is connected with the formation of the symmetric carbamate: $R'OOC.CHR.NH_3^+.\ ^-OOC.NH.CHR.COOR'$. Carbamate formation is an endothermic reaction, and therefore overheating of the reaction mass may easily occur if CO_2 is added at an increased rate. The carbamate itself causes no thermal impediment to polycondensation. In this connection, the kinetics of the consumption of monomers and the variation of the composition of the polycondensed glycine-ethyl ester obtained in the presence of a carbamate was investigated in the present case. The investi-

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The Kinetics of the Polycondensation of Glycine-ethyl Esters in the Presence of Its Carbamate

gation methods are the same as those of reference 1. The content of free monomers, the reaction product yield, and their diketopiperazine and amino nitrogen content was determined. Figures 1 and 2 show the velocity constant of the consumption of monomers and, accordingly, the concentration of the diketopiperazines in the polycondensation products when carbamate and CO_2 are used as initiators. From the difference alone between the consumption of monomers conclusions are drawn as to a difference in the kinetics of the aggregation of the diketopiperazines. From figure 2, which shows the concentration of diketopiperazines in the final products, a distinct difference in the two initiators may be recognized, especially at the beginning of the reaction. The difference is caused by heating the reaction mass by the endothermal formation of carbamate when using the CO_2-initiator.

When carbamate is used as initiator, the reaction product yield remains proportional to the time of reaction, and also the amino nitrogen (NH_2-N) content in the reaction products remains constant. The authors thank Ye. V. Lecnova for her assistance.

SOV/62-59-5-34/40

The Kinetics of the Polycondensation of Glycine-ethyl Esters in the Presence of Its Carbamate

The activation energy of the affiliation of the monomer to the peptide was determined. There are 2 figures and 5 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: October 28, 1958

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5(3)

AUTHORS: Khurgin, Yu.I., Kozarenko, T.D., Poroshin, K.T.

SOV/62-59-7-26/38

TITLE: The Kinetics and Chemism of the Polycondensation of the Esters of α-Amino Acids (Kinetika i khimizm polikondensatsii efirov α-aminokislot)
VIII. The Influence of the Initial Content of Carbamate on the Velocity of the Polycondensation of the Ethyl-Ester of Glycine. (Soobshcheniye 8. Vliyaniye nachal'nogo soderzhaniya karbamata na skorost' polikondensatsii etilovogo efira glitsina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1959, Nr 7 pp 1328 - 1332 (USSR)

ABSTRACT: Introducing the well-known mechanism of polycondensation of the esters of α-amino acids under the influence of simple initiators- in this case CO_2- and the formation of initiator substrate is described briefly (Refs 1-4). It had been shown, that the original initiator for the polycondensation is not CO_2, but the symmetric carbamate as the arising substrate. If this is true, it must be the same for

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the velocity of polycondensation, no matter whether carbamate is formed by the addition of CO_2 or is added directly. Moreover, for a small amount of i/m - i/m is the relative, molar initial concentration of the initiator i, related to the monomer m - the consumption of the monomer must be proportional to the initial amount of carbamate. In the investigation of kinetics it had been shown that this proportionality was maintained for all initial concentrations,. The consumption of monomer may be represented by the following equation:

$$m(t) = (1 - 2\xi_0)e^{-k(\xi_0)t}$$

In this paper the above named assumption is investigated. The dependence of the velocity of monomer consumption on the initial concentration of the initiator was investigated. The content of free monomers in the reaction product was

determined by means of the improvement method. Moreover, the consumption of monomers was investigated with immediate initiation with symmetric carbamate. The experimental data for the consumption of monomers with initial concentrations of initiator CO_2 ξ_o = 0.01, 0.02, 0.04, 0.08 and 0.16 are demonstrated in a semi-logarithmic scale in figure 1. For all i/m monomer's consumption is first class. The extrapolation of the straight line cuts the ordinate in the point lgm = 0(m = 1)= m^o . m^o is reduced with increasing ξ_o. Therefore m^o is the exact initial concentration for the secondary stage of the reaction. In the equation obtained from the experiment:

$$m(t) = m^o \cdot e^{-kt}$$

Card 3/5 m^o and k were calculated by the method of the least squares.

The Kinetics and Chemism of the Polycondensation SOV/62-59-7-26/38
of the Esters of α - Amino Acids. VIII. The Influence of the Initial
Content of Carbamate on the Velocity of the Polycondensation of the
Ethyl-Ester of Glycine

The results are listed in Table 1. $\frac{1 - m^0}{\beta}$ was calculated as the stoichiometrical coefficient of the reciprocal effect of the monomer with CO_2 in the primary stage of reaction. In this case of carbamate initiation m^0 was found to be 0.995 i.e. it was equal to the initial amount of the monomer. This result may serve as evidence that carbamate is formed in the first stage of the reaction. The constants of velocity of monomer consumption in dependence on the initial concentrations of carbamate i/m are listed in table 2. The kinetic curve (Fig 2) is a straight line up to concentrations i/m = 0.07. Moreover the velocity of monomer consumption was proved to be independent of the length of the formed chain of polymers. There are 2 figures, 2 tables, and 7 references, 5 of which are Soviet.

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The Kinetics and Chemism of the Polycondensation of the Esters of α- Amino Acids. VIII. The Influence of the Initial Content of Carbamate on the Velocity of the Polycondensation of the Ethyl-Ester of Glycine

SOV/62-59-7-26/38

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N.D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: November 30 , 1957

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5(3), 5(4) SOV/62-59-8-18/42

AUTHORS: Poroshin, K. T., Khurgin, Yu. I., Kozarenko, T. D.

TITLE: Kinetics and Chemism of the Polycondensation of Esters of the α-Amino Acids and Peptides. Communication 9. On the Autocatalytic Nature of the Polycondensation of the Ethylester of Glycine in the Presence of Carbon Dioxide

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 8, pp 1453-1457 (USSR)

ABSTRACT: In the present paper the assumption concerning the autocatalytic nature of the polycondensation reaction of the esters of α-amino acids in the presence of CO_2 is investigated. For this purpose the yield of the polycondensation products of ethylglycine ester was measured and their composition determined. The condensation product was fractionated and the products of the solid phase determined by weighing. It consisted of ethyl esters of glycine peptides of various lengths, and diketopiperazine. Several test series with different CO_2 contents in the initial products were carried out. From the yields obtained it could be seen that the polycondensation of ethylglycine ester is an autocatalytic process with a gradual growth of the peptide chain. The growth of the peptide

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Kinetics and Chemism of the Polycondensation of Esters of the α-Amino Acids and Peptides. Communication 9. On the Autocatalytic Nature of the Polycondensation of the Ethylester of Glycine in the Presence of Carbon Dioxide

chain is more rapid than the formation of new chains. Thus two stages could be observed: formation of new chains and growth of the chains. There are 4 figures, 2 tables, and 5 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: December 10, 1957

5(3)

AUTHORS: Poroshin, K. T., Khurgin, Yu. I., Kozarenko, T. D.

SOV/2o-124-1-29/69

TITLE: Polycondensation of Glycine Ethyl Ester in the Presence of Its Carbamate (Polikondensatsiya etilovogo efira glitsina v prisutstvii yego karbamata)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 1o5 - 1o6 (USSR)

ABSTRACT: The carbamate formation represents the first stage of the reaction mentioned in the title of the α-amino acids in the presence of CO_2 (Ref 1). It proceeds practically instantly (Ref 2) as compared with the other stages. It was earlier proved (Ref 3) that the course of the polycondensation is determined by the relative initial concentration of the initiator (in this case the carbamate). Although the α-amino acid esters as well as their carbamates are rather stable, they are subjected to polycondensation on CO_2 addition. Thus, carbamate and not CO_2 is the real initiator. Thus, polycondensation must occur also on adding carbamate to the monomeric ester. The rate of the polycondensation and the com-

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position of the resulting products will be independent of the way of introducing the initiator. The purpose of the present paper is to check the assumption that the carbamates actually initiate the polycondensation of the α-amino acid esters in the presence of CO_2. As can be seen from the data on the monomer consumption (Fig 1) the reaction initiated by carbamate is of first order, viz. it proceeds in the same way as on initiation by CO_2. It was earlier proved that the rate of the monomer consumption rises with an increase in the initial concentration of the initiator (Ref 3). In the reaction initiated by carbamate the first stage of the rapid consumption of the initiator is missing. This rapid stage, however, occurs in the initiation by CO_2 (Fig 1) . The chromatographic investigation of the polycondensate proved that the quantitative composition of the reaction products is independent of the way of formation of the initial reaction mixture. There are 1 figure and 7 references, 4 of which are Soviet.

Polycondensation of Glycine Ethyl Ester in the Presence of Its Carbamate

SOV/20-124-1-29/69

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

PRESENTED: August 29, 1958, by B. A. Kazanskiy, Academician

SUBMITTED: August 26, 1958

Card 3/3

KHURGIN, YU. I.

SOV/4982

International symposium on macromolecular chemistry, Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii SSSR, Moskva, 14-18 Iyunya 1960 g.; doklady i avtoreferaty. Sektsiya I. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960; Papers and Summaries. Section I.) [Moscow, Izd-vo AN SSSR, 1960] 348 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for chemists and researchers interested in macromolecular chemistry.

COVERAGE: This is Section I of a multivolume work containing scientific papers on macromolecular chemistry in Moscow. The material includes data on the synthesis and properties of polymers, and on the processes of polymerization, copolymerization, polycondensation, and polyrecombination. Each text is presented in full or summarized in French, English, and Russian. There are 47 papers, 28 of which were presented by Soviet, Rumanian, Hungarian, and Czechoslovakian scientists. No personalities are mentioned. References accompany individual articles.

AVAILABLE: Library of Congress

Card 9/9 14/dm/kb 3-23-61

Organoelement Polymers

Card 6/9

POROSHIN, K.T.; KHURGIN, Yu.I.; PROKHOROVA, N.I.

Hydrolysis of p-nitrophenyl acetate in the presence of N-carbobenzoxy-asparagylserylglycine. Izv. AN SSSR Otd. khim. nauk no.10:1901-1902 O '60. (MIRA 13:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR.

(Glycine) (Acetic acid)

POROSHIN, K.T.; KHURGIN, Yu.I.; DMITRIYEVA, M.G.; KOZARENKO, T.D.

Kinetics and mechanism of the polycondensation of amino acid esters and peptides. Report No.12: Polycondensation of ethyl glycylglycinate. Izv. AN SSSR.Otd. khim. nauk no.12:2215-2220 D '60. (MIRA 13:12)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Glycine) (Condensation products)

S/020/60/132/03/37/066
B011/B008

AUTHORS: Poroshin, K. T., Academician AS TadzhSSR, Khurgin, Yu. I., Dmitriyeva, M. G.

TITLE: Hydrolysis of the p-Nitro-phenyl Esters of Glycine, Glycylglycine, Diglycylglycine and Their Carbobenzoxy Derivatives

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 3, pp. 623-625

TEXT: The paper of the authors deals with the resistivity of the substances mentioned in the title against the basic hydrolysis in the aqueous medium. As is well known, the activation of the carboxyl group is one of the most important phases of the protein biosynthesis (and the peptide synthesis). This activation takes its course in the aqueous medium under much milder conditions. At the biosynthesis, the carboxyl group is activated by means of the decomposition of aminoazyl adenylates. The latter are related to the activated esters of the

Hydrolysis of the p-Nitro-phenyl Esters of Glycine, Glycylglycine, Diglycylglycine and Their Carbobenzoxy Derivatives

S/020/60/132/03/37/066
B011/B008

α-amino acids and similar with regard to their chemical properties. The reactions of these esters can therefore be used for the simulation of biosynthetic processes, under conditions which are similar to the physiological ones. Since the p-nitro-phenyl esters are only slightly soluble in water, the hydrolysis was studied in aqueous-alcoholic medium (50 volume %) at a constant concentration of the hydroxyl ions. This was obtained by means of buffer solutions (phosphate-buffer M/15, pH 7.20). Alcoholic solutions of the hydrobromides of the esters mentioned in the title, as well as of the carbobenzoxy-diglycine were mixed with the same volume of the buffer mentioned in such a way that the final concentration of the ester amounted to 10^{-4} Mol. The time slope of the hydrolysis was recorded spectrophotometrically. The rate constants of the hydrolysis of the activated esters (Table 1) were calculated from the data (Fig. 1) and used for the evaluation of the reactivity of the esters. The absorption spectrum of some esters in alcoholic solution was measured before mixing with the buffer, and the intactness of the ester was checked. Spectrophotometers of type

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Hydrolysis of the p-Nitro-phenyl Esters of Glycine, Glycylglycine, Diglycylglycine and Their Carbobenzoxy Derivatives

S/020/60/132/03/37/066
B011/B008

CΦ-4 (SF-4) were used. The authors compare the values of the rate constants of the hydrolysis determined by them with those of other scientists. These two values are in good agreement. The data obtained by the authors also agree with the data from publications, according to which the resistivity of the (nonactivated) ester groups decreases often at the transition from carboxylic acids to the amino acids. As expected, the hydrobromide of the glycine-p-nitro-phenyl esters is most readily hydrolized of all substances investigated. In conclusion, the authors state that the influence of the amino group decreases with the elongation of the peptide chain, whereas the resistivity of the ester group increases and approaches that of the esters of the carboxylic acids. An inverted conformity prevails in the series of the N-carbobenzoxy derivatives: the stability of the p-nitro-phenyl esters decreases through the removal of the carbobenzoxy group. The hydrolysis is considerably accelerated at the transition from glycine to the peptides. The difference in the hydrolysis rates of the peptides is relatively small. There are 1 figure, 1 table, and 13 non-Soviet references.

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Hydrolysis of the p-Nitro-phenyl Esters of Glycine, Glycylglycine, Diglycylglycine and Their Carbobenzoxy Derivatives

S/020/60/132/03/37/066
B011/B008

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: January 19, 1960

Card 4/4

STEPANOVA, N.B.; KHURGIN, Yu.I.; POROSHIN, K.T.

Polycondensation of ethyl glycinate in the presence of ethyl alcohol. Izv. AN SSSR. Otd. khim. nauk no. 1:160-162 Ja '61. (MIRA 14:2)

1. Institut organicheskoy khimii im.N.D. Zelinskogo AN SSSR.
(Glycine)

KHURGIN, Yu.I.; DMITRIYEVA, M.G.

Relative reaction rates of peptide synthesis (aminolysis of n-nitrophenyl esters). Dokl. AN SSSR 143 no.3:629-632 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. Predstavleno akademikom B.A.Kazanskim.
(Peptides)(Chemical reaction, Rate of)

DMITRIYEVA, M.G.; KHURGIN, Yu.I.

Kinetics of the reaction of aminolysis of p-nitrophenyl esters of acylated α-amino acids in dioxane. Izv. AN SSSR. Ser. khim. no.7: 1174-1180 '65. (MIRA 18:7)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

Khurgina, R.A.

USSR/Analytical Chemistry - Analysis of Inorganic Substances G-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4809

Author : Khurgina, R.A.
Title : Method for Determination of Fractional Composition of Titanium Dioxide.

Orig Pub : Iskusstvennoye volokno. Sb. 8. M., Gizlegprom, 1955, 44-53

Abstract : To determine the fractional composition of TiO_2 it is recommended to utilize the pipette-method of sedimentation analysis. To carry out the analysis a suspension of TiO_2 in water is prepared using a triethanol amine - oleic soap mixture as the stabilizer. Dimensions of particles are determined on the basis of sedimentation time, which is calculated according to Stokes formula on the basis of a given diameter of the particles.

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KHURGINA, R.A.

MOGILEVSKIY, Ye.M.; ALEKHIN, N.Ya.; KHURGINA, R.A.; LAVRUSHIN, F.I.; LOTAREV, B.M.; GINZBERG, M.A.

New method of producing viscose solutions with a single apparatus. Tekst. prom. 17 no.5:11-14 My '57. (MLRA 10:6)
(Textile chemistry)

KHURGINA, R.A.; PAKSHVER, A.B.

Separation determination of sodium sulfide and sodium trithiocarbonate in viscose solutions. Report No.2. Khim. volok. no.2:51-53 '59. (MIRA 12:9)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.
(Viscose--Analysis)

KHURGINA, R.A.; PAKSHVER, A.B.

Rapid method for determining sulfide sulfur in by-products from viscose solutions. Khim.volok. no.3:35-36 '59. (MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (VNIIV).
(Viscose) (Sulfur--Analysis)

KHURGINA, R.A.; PAKSHVER, A.B.

Methods for determining the amount of free sodium hydroxide and soda in viscose solutions. Khim.volok. no.3:37-39 '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (VNIIV).
(Viscose) (Sodium hydroxide) (Sodium carbonate)

15(4), 5(2)

S/183/59/000/06/010/027
B004/B007

AUTHORS: Khurgina, R. A., Pakshver, A. B.

TITLE: A Complete Analysis of the Components of Viscose

PERIODICAL: Khimicheskiy volokna, 1959, Nr 6, pp 34-37 (USSR)

ABSTRACT: The authors mention the well-known methods of analyzing viscose (Refs 1-14) and its disadvantages (e.g. too complicated in practice, lack of accuracy). They checked several methods of determining sulfur- and sodium compounds and the γ-number. As a result of their investigations, the authors recommend the following method, in which determination of the individual components is carried out in separate samples. Production of two solutions: 1) Viscose solution. 2) Solution of by-products, obtained by salting out the xanthate with NaCl. The total content of sulfur is iodometrically determined in viscose and by-products after reduction by means of sodium zincate (Ref 15) to Na_2S. Na and S, bound in the xanthate, are determined according to the polymer method (Ref 17). The separate determination of Na_2S and sodium trithiocarbonate is carried out by means of gas analysis of the solution of the

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A Complete Analysis of the Components of Viscose S/183/59/000/06/010/027
B004/B007

by-products (Refs 2, 6) or by means of the titration with $K_3Fe(CN)_6$ worked out by the authors. For the purpose of determining hyposulfite and polysulfide sulfur the well-known method of reference 22 is used. For determining free NaOH and soda the authors developed a new method in an earlier paper (Ref 23). The results obtained by such analyses of viscose are given in a table. There are 1 table and 23 references, 13 of which are Soviet.

ASSOCIATION: VNIIV- Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna
(All-Union Scientific Research Institute for Synthetic Fibers)

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S/183/60/000/02/20/025
B004/B005

AUTHORS: Mogilevskiy, Ye. M., Ginzberg, M. A., Khurgina, R. A.

TITLE: Temperature Conditions for the Xanthogenization of Alkali Cellulose

PERIODICAL: Khimicheskiye volokna, 1960, No. 2, pp. 60 - 63

TEXT: The authors report on the determination of the esterification degree of cellulose xanthogenate in dependence on the duration of xanthogenization and on temperature (0-40°). The experiments were carried out in a VA apparatus on refined sulfite cellulose (containing 91.6% of α-cellulose). The soda lye concentration was 200 g/l. Carbon disulfide was added at a rate of 40% of the α-cellulose content. The experimental data are presented as follows: Fig. 1, dependence of γ on the duration of xanthogenization (10 min to 10 h) at 20, 25, and 30°; Table 1, content of bound CS_2 in the xanthogenate in dependence on temperature and duration of the process; Fig. 2, dependence of γ on the duration of xanthogenization at temperatures between 0 and 40°; Table 2, amount of CS_2 used for the formation of secondary products; Table 3, data of the fibers produced. The authors arrived at the following results: During the process of xanthogenization, the curves for γ pass a maximum which is explained by the simultaneous esterification of alkali

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cellulose and the decomposition of the xanthogenate. An increase in temperature accelerates both the formation of xanthogenate and that of secondary products. The temperature factor of cellulose xanthogenization is about 2. Between 20 and 30°, there is no strict dependence between gamma number and temperature in spite of accelerated xanthogenization. It is only observed that gamma falls from 55 (at 20°) to 50 (at 30°). In this temperature range, no differences in the distribution of CS_2 were observed. In the wide range between 0 and 40°, the dependence of gamma on temperature is more distinct (70 at 10°, 48 at 40°). Accordingly, the CS_2 distribution also changes. If the xanthogenization in the VA apparatus is carried out in such a way that at the beginning of reaction a high temperature prevails which decreases during the reaction, the duration of viscose production can be considerably reduced. There are 2 figures, 3 tables, and 13 references, 8 of which are Soviet.

ASSOCIATION: VNIIV (All-Union Scientific Research Institute of Synthetic Fibers)

KHURGINA, N. A., Cand. Tech. Sci. (diss) "Investigation of Process of Seasoning of Viscose," Moscow, 1961, 14 pp. (Moscow Textile Inst.) 150 copies (KL Supp 12-61, 276).

KHUPGINA, R.A.; PAKSHVER, A.B.

Kinetics of decomposition of cellulose xanthate and of formation of sodium trithiocarbonate in viscose. Khim.volok. no.2:25-30 '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.
(Cellulose xanthates) (Sodium thiocarbonate) (Viscose)

KHURGINA, R.A.; PAKSHVER, A.B.

Kinetics of viscose ripening process. Khim.volok no.4:34-37 '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (for Khurgina). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut steklyanogo volokna (for Pakshver).
(Viscose)

MOGILEVSKIY, Ye.M.; GINZBERG, M.A.; KHURGINA, R.A.

Degradation of alkali cellulose by means of oxidizers and catalysts. Khim. volok. no.1:54-57 '65. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

KHURGINA, Ya. S.

"The Role and Importance of Prophylactic Orthodontia in Healing Oral Infection in Children," Stomatologiya, No. 2, 1949.

Cand Med Sci

KHURGINA, YA. S.

Dissertation: "Clinical Observations of the Tooth-Jaw Deformations in Children and Methods for their treatment."
26/6/50

Moscow Medical Stomatological Inst.

SO Vecheryaya Moskva
Sum 71

KHURGINA, Ya. S.

"Clinical Observations of Tooth and Jaw Deformations in Children and Methods for their Treatment." Thesis for degree of Cand. Medical Sci. Sub 26 Jun 50, Moscow Medical Atomatological Inst.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

KHURGINA, Ya. S.

"Clinical Manifestations of Tooth and Jaw Deformities in Children and Methods of Treating Them." Sub 25 Jun 51, Moscow Medical Stomathological Inst, Ministry of Public Health RSFSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

KHURGINA, Ya.S., kandidat meditsinskikh nauk

Age factors in selection of orthodontic intervention. Stomatologiia no.5:43-46 S-O '54. (MLRA 7:11)

1. Iz otdela protesnoy stomatologii Tsentral'nogo instituta travmatologii i ortopedii (dir. chlen-korrespondent AMN SSSR prof. N.N. Priorov) Ministerstva zdravookhraneniya SSSR.
(MALOCCLUSION,
prev. & ther., indic.)

KHURGINA, Ya. S.

BOVDZEY, N.

On the article by Ia.S. Khurgina on "Age factors in evaluating a choice of orthopedic therapy. Stomatologiia no.3:50-51 My-Je '55. (MLRA 8:9)

1 Iz poliklinicheskogo otdeleniya 6-y gorodskoy detskoy bol'nitsy Kiyevskogo rayona Moskvy.
(JAWS--ABNORMITIES AND DEFORMITIES)

KHURGINA, Ya.S., kandidat meditsinskikh nauk

Beautiful teeth. Zdorov'e 2 no.10:27 O '56. (MLRA 9:11)
(TEETH--ABNORMITIES AND DEFORMITIES)

KHURGINA, Ya.S., kandidat meditsinskikh nauk.

On the discussion about the time for orthodontic operations in deformations of the teeth and jaws. Stomatologiia 35 no.4:49-51 Jl-Ag '56. (MLRA 10:4)

1. Iz sektora proteznoy stomatologii (zav.I.I.Revzin) TSentral'nogo instituta travmatologii i ortopedii Ministerstva zdravookhraneniya SSSR (dir.-chlen-korrespondent AMN SSSR prof. N.N. Priorov)

(TEETH--ABDNORMITIES AND DEFORMITIES)
(JAWS--ABNORITIES AND DEFORMITIES)

GURIN, Ya.S.; KHUTGINA, Ye.K.

Methods for testing d.c. motors. Standartizatsiia 26 no.7:27-30 Jl '62. (MIRA 15:7)
(Electric motors, Direct current--Testing)

GARBER, I.; KHURGINA, Z.

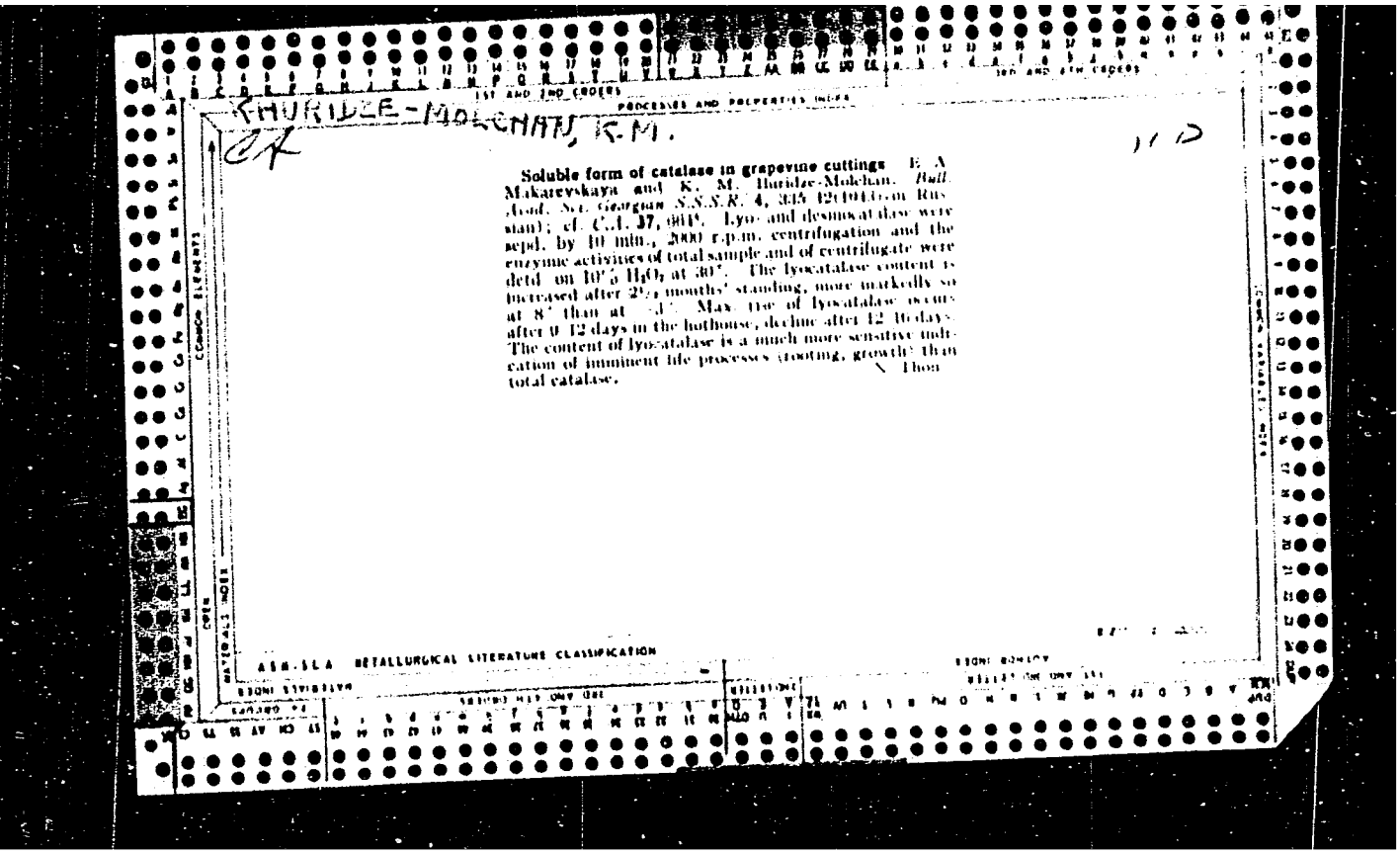
How a bank department executes control over wage fund. Den. i kred. 17 no.10:49-53 O '59. (MIRA 12:12)
(Moscow--Banks and banking) (Wages--Accounting)

GALIMON, L.S., kand. ekon. nauk; IOFFE-GONCHARUK, N.A.; KOTSAREVA, T.G.; SOZINOVA, O.A.; STEKLOVA, A.N.; KHURGINA, Z.A.; KOTKOV, M.I., otv. red.; NADEZHDINA, A., red. izd-va; TELEGINA, T., tekhn. red.

[Control over wage fund disbursement] Kontrol' za raskhodovaniem fondov zarabotnoi platy. Moskva, Gosfinizdat, 1962. 117 p. (MIRA 15:7)

1. Gosudarstvennyy bank Moskvy (for Ioffe-Goncharuk, Kotsareva, Sozinova, Steklova, Khurgina). 2. Nachal'nik Otdela kontrolya za zarabotnoy platoy Pravleniya Gosudarstvennogo banka SSSR (for Kotkov).

(Moscow--Banks and banking) (Moscow--Wages)



KHURIDZE-MOLCHAN, K.M.

Soluble form of catalase in grapevine cuttings. E. A. Makarevskaya and K. M. Khuridze-Molchan. *Bull. Acad. Sci. Georgian S.S.S.R.* 4, 335-42(1943)(in Russian); cf. *C.A.* **37**, 6018. Lyo- and desmocatalase were sepd. by 10 min., 3000 r.p.m. centrifugation and the enzyme activities of total sample and of centrifugate were detd. on 10% H_2O_2 at 30°. The lyocatalase content is increased after 2½ months' standing, more markedly so at 8° than at −4°. Max. rise of lyocatalase occurs after 9-12 days in the hothouse, decline after 12 days. The content of lyocatalase is a much more sensitive indication of imminent life processes (rooting, growth) than total catalase.

GEL'MANOV, K.; KHURIN, Mikhail (g.Lipetsk); VOROTNIKOV, A.

Good luck!. Tekh.mol. 28 no.6:1-3 '60. (MIRA 13:7)

1. Glavnyy inzhener Yeletskogo elementnogo zavoda (for Gel'manov). 2. Pervyy sekretar' Lipetskogo obkoma komsomola (for Vorotnikov).
(Efficiency, Industrial)

SOV/68-58-11-9/25

AUTHORS: Boldyrev I.K., Gutman L.M. and Khurin S.M.

TITLE: Experience in Replacing Gas-Air Valves and Increasing the Travel of the Reversing Equipment (Opyt zameny gazovozdushnykh klapanov i udlineniya khoda kantovki)

PERIODICAL: Koks i Khimiya, 1958, Nr 11, pp 24-26 (USSR)

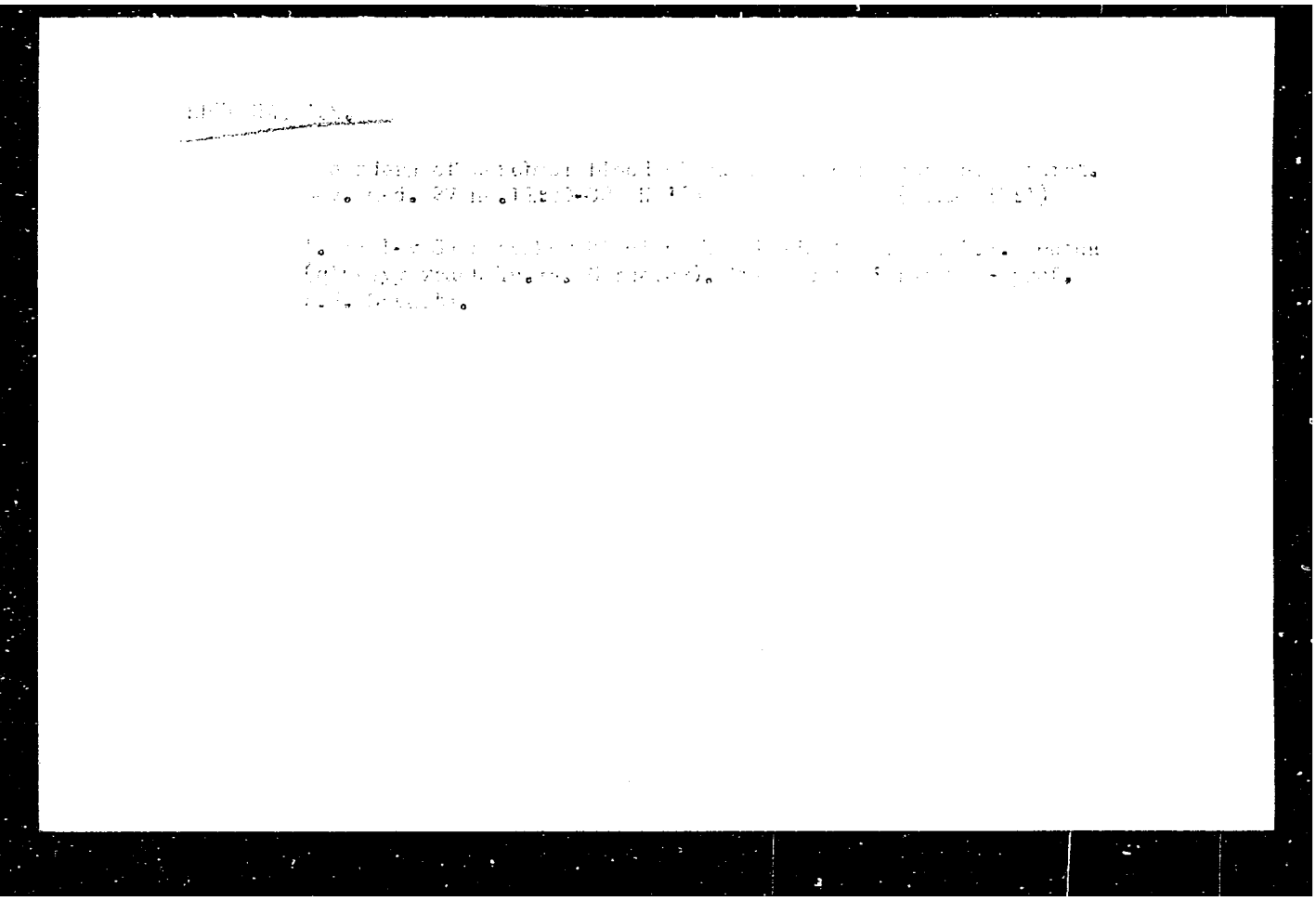
ABSTRACT: The method adopted for exchanging gas and air valves of an old design for new ones of a standard design and increasing the pitch of reversing equipment is described and illustrated.
There are 4 figures.

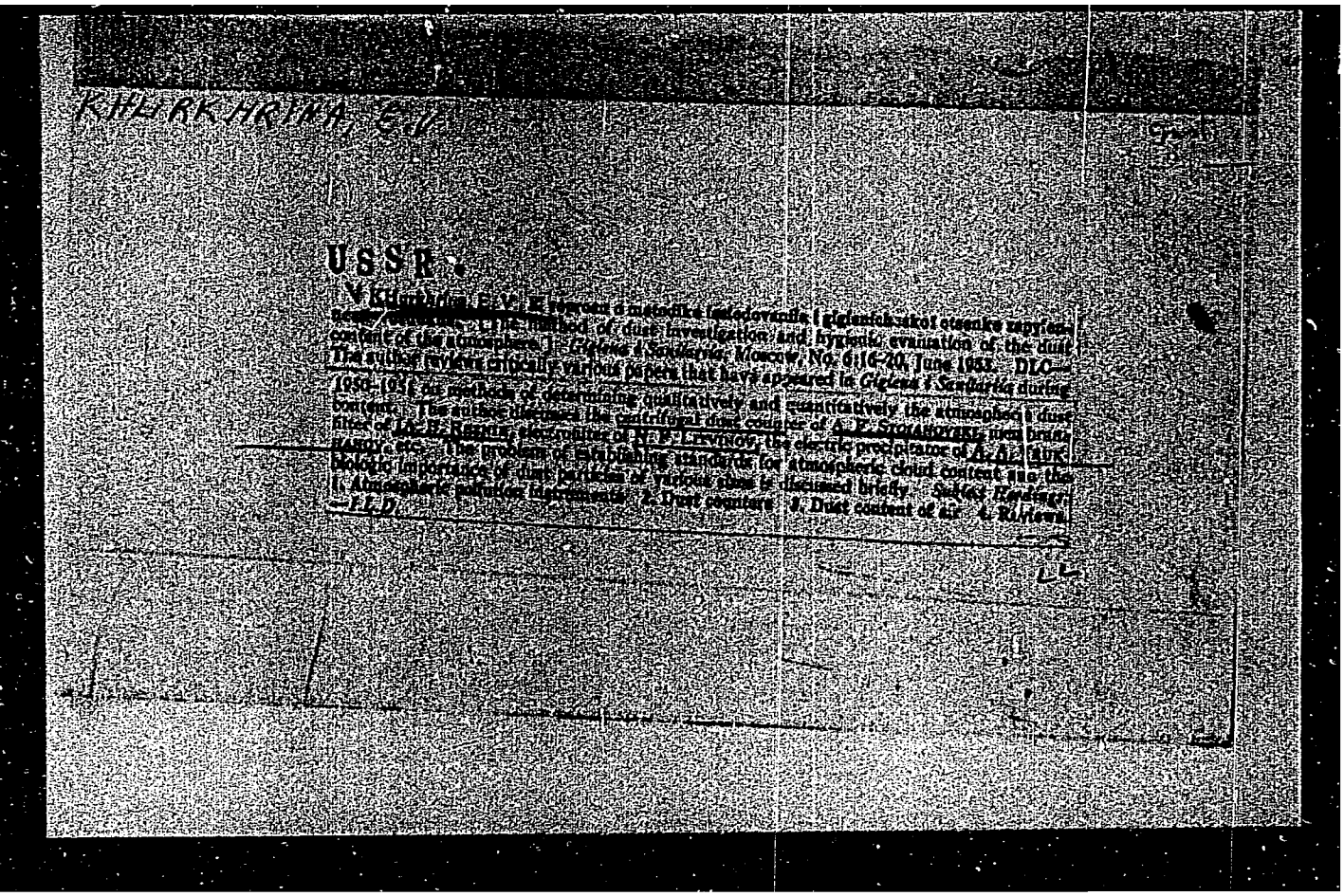
ASSOCIATION: Stalinskiy Koksokhimicheskiy zavod (Stalino Coke By-Product Plant)

Card 1/1

KHURIN, Yefim Semenovich; GENIN, M.Ya., nauchnyy red.; TYUTYUNIK, M.S., red.; PERSON, M.N., tekhn. red.

[Manual for young sanitary engineers] Spravochnik molodogo santekhnika. Moskva, Vses. uchebno-pedagog. izd-vo Proftekhizdat, 1961. 382 p. (MIRA 15:3)
(Sanitary engineering)





KHURKHRINA, E.V.

USSR

Khurkhrina, E. V. K voprosu o metodike issledovaniia i gigienicheskoi otsenke zapylennosti atmosfery. [The method of dust investigation and hygienic evaluation of the dust content of the atmosphere.] *Gigiena i Sanitariia*, Moscow, No. 6:16-20, June 1953. DLC—The author reviews critically various papers that have appeared in *Gigiena i Sanitariia* during 1950-1951 on methods of determining qualitatively and quantitatively the atmospheric dust content. The author discusses the centrifugal dust counter of A. F. Stoianovskii, membrane filter of Ia. B. Reznik, electrofilter of N. F. Litvinov, the electric precipitator of A. A. Zukhanov, etc. The problem of establishing standards for atmospheric cloud content and the biologic importance of dust particles of various sizes is discussed briefly. *Subject Headings*: 1. Atmospheric pollution instruments. 2. Dust counters. 3. Dust content of air. 4. Reviews.—*I.L.D.*

NADAREYSHVILI, V.K.; KHURODZE, K.V.; RUKHADZE, G.L.; GUDIASHVILI, R.N.

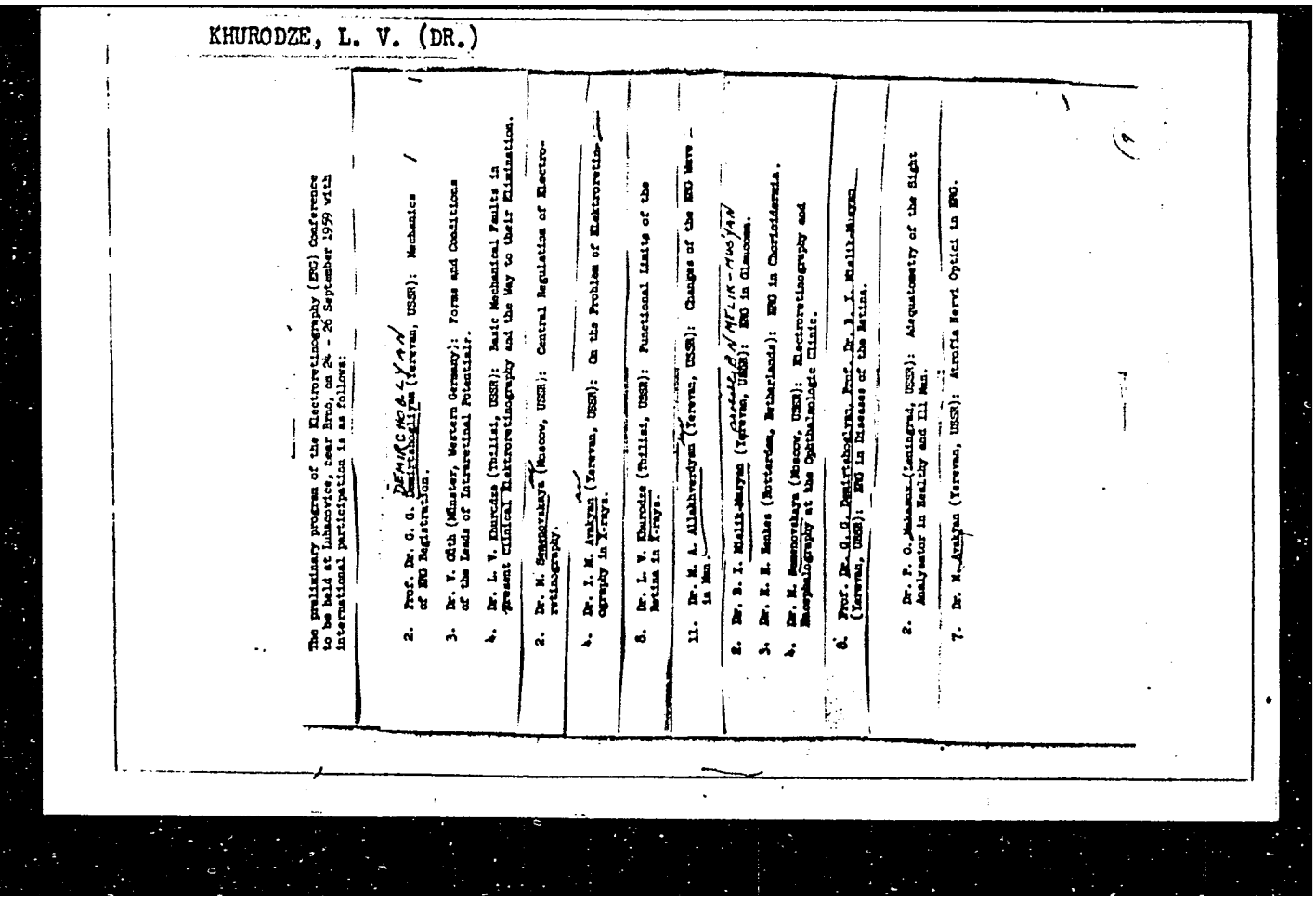
Method of prospecting for sulfide deposits based on secondary dispersion halos as revealed by the study in southern Georgia. Geol. sbor. [Kavk.] no.2:155-166 '62. (MIRA 17:1)

KHURODZE, L.V.

Problem of the visibility of roentgen rays. Probl. fiziol. opt. 11:229-235 '55. (MLRA 9:6)

1. Respublikanskaya klinicheskaya bol'nitsa glaznykh zabolevaniy Ministerstva zdravookhraneniya Gruzinskoy SSR i Glaznaya klinika Tbilisskogo gosudarstvennogo meditsinskogo instituta.

(ROENTGEN RAYS,
visibility (Rus))
(VISION,
visibility of x-rays (Rus))



KHURODZE, L. V. (DR.)

The preliminary program of the Electroretinography (ERG) Conference to be held at Lukovice, near Brno, on 24 - 26 September 1959 with international participation is as follows:

2. Prof. Dr. G. G. DEMIRCHOGLYAN Demirchoglyan (Yerevan, USSR): Mechanics of ERG Registration.
3. Dr. V. Olth (Minster, Western Germany): Forms and Conditions of the Leads of Interretinal Potential.
4. Dr. L. V. Khurodze (Tbilisi, USSR): Basic Mechanical Faults in Present Clinical Electroretinography and the Way to their Elimination.
5. Dr. M. Semenovskaya (Moscow, USSR): Central Regulation of Electroretinography.
6. Dr. I. M. Arakyan (Yerevan, USSR): On the Problem of Elektroretinography in X-rays.
8. Dr. L. V. Khurodze (Tbilisi, USSR): Functional Limits of the Retina in X-rays.
11. Dr. M. A. Alikhverdyan (Yerevan, USSR): Changes of the ERG Wave in Man.
2. Dr. B. I. Malik-Asayan (Yerevan, USSR): ERG in Glaucoma.
3. Dr. H. H. Kembe (Rotterdam, Netherlands): ERG in Chorioiderals.
4. Dr. M. Semenovskaya (Moscow, USSR): Electroretinography and Encephalography at the Ophthalmologic Clinic.
6. Prof. Dr. G. G. Demirchoglyan, Prof. Dr. B. I. Malik-Asayan (Yerevan, USSR): ERG in Diseases of the Retina.
2. Dr. P. O. Makaenok (Leningrad, USSR): Acquatometry of the Sight Analyzator in Healthy and Ill Man.
7. Dr. M. Arakyan (Yerevan, USSR): Atrofia Nervi Optici in ERG.

MELIKADZE, I.G.; LARIN, R.R.; BEZHANOV, F. Kh.; Prinimali uchastiye: KHUROSHVILI, G., inzh.; TSAGARELI, T., inzh.; ZAMTARADZE, E., inzh.; BOCHORTSHVILI, G., tekhnik; MAYSURADZE, L., laborant; SHUBLADZE, G., laborant; PANKRATOVA, Ye., kamnerez.

Investigation of teschenite disintegration by the thermal method. Soob. AN Gruz. SSR 34 no.3:633-640 Je '64 (MIRA 18:1)

1. Institut gornogo dela imeni G.A. TSulukidze AN Gruzinskoy SSR. Submitted November 25, 1963.

KHUROSHVILI, K. G., Cand Biol Sci -- (diss) "Study of the Possibility of the Use of the Method of Isolated Culture of Embryos and Tissues in Aurantiaceae." Tbilisi, 1957. 15 pp (All-Union Order of Lenin Acad of Agricultural Sci im V. I. Lenin, All-Union Sci Res Inst of Tea and Subtropical Crops), 100 copies (KL, 49-57, 112)

USSR/Cultivated Plants - Subtropical. Tropical. M.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44353

Author : Khuroshvili, K.G.

Inst : All-Union Scientific Research Institute for Tea and Subtropical Cultures.

Title : The Culture if Isolated Embryos and Tissues as a Method of Selecting Citrus Plants.

Orig Pub : Byul Vses. n.-i. in-ta chaya i subtrop. kul'tur, 1957, No 1, 178-195, 180-197.

Abstract : This article describes the technique, studied at the All-Union Institute of Tea and Subtropical Cultures, of growing the embryos of citurs plants in artificial media for the purpose of developing the methods of breeding the citrus varieties with a view of raising their frost and malsecco resistance. The best nutrient solution for

Card 1/2

KHUROSHVILI, K.G., aspirant

Culture of isolated embryos and tissues as a method for citrus breeding. Biul. VNIICHiSK no.1:180-197 '57. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut chaya i subtropicheskikh kul'tur.
(Tissue culture) (Citrus fruits)

NESTERENKO, A.D.; TSUKERNIK, L.V.; KHURSHCHOVA, Ye.V.; ROZHANSKIY, L.L.; NAYASHKOVA, Ye.F.; RASHKOVSKIY, Yu.A.

A.L. Matveev. Elektrichestvo no.7:94 Jl '56. (MLRA 9:10)

(Matveev, Arkadii L'vovich, d. 1956)

KHuRSHuDov, G.Kh.

PHASE I [illegible] SOV/

Akademiya nauk SSSR. Institut mashinovedeniya

Trudy, tom 1: Vtoraya nauchno-tekhnicheskaya konferentsiya aspirantov i molodykh nauchnykh sotrudnikov (Transactions of the Institute of Machine Science, Academy of Sciences, USSR, Vol 1: Second Scientific and Technical Conference of Aspirants and Junior Scientific Workers) Moscow, 1959. 182 p. Errata slip inserted. 1,000 copies printed.

Resp. Ed.: A.K. D'yachkov, Doctor of Technical Sciences, Professor; Tech. Ed.: B.K. Shorin.

PURPOSE: This book is intended for technical personnel engaged in the design of machines and mechanisms.

COVERAGE: This collection of scientific papers, presented at a conference held July 2-3, 1958, deals with the theory of machines and mechanisms, strength of machine parts, friction and wear in machines, and machine-building technology.

Krasnoshchekov, N.N. Theoretical Basis for Determining Accuracy of Spur Gears With K.L. Novikov Tooth Action 65

Korablev, S.S. Investigation of Resonance Properties of Mechanical Systems 75

Results of theoretical and experimental investigations of the process of transition through resonance in mechanical vibrating systems are presented. The results of an investigation of resonance properties of a centrifugal vibrator with non-linear restoring force are discussed.

Kurlykin, L.A. Dynamics of the Transition Through Resonance of Vibrating Shafts With Different Moments of Principal Inertia, With the Coupling to an Engine Taken Into Account 89

Vibrations of shafts with different principal moments during transition through the zone of static instability are investigated. Equations of motion and methods for their solution are presented.

Chipov, K.A. Investigating the Process of Producing Splines on Shafts by Broaching or Planing With Gang Tools 101

Basic theoretical considerations on the selection of methods for cutting splines in shafts are developed. Broaching and planing are experimentally investigated and recommended as the most efficient methods for cutting splined shafts in large-lot and mass production.

Kosarev, L.Ye. Investigation of Methods of Compacting Casting Molds 121

The effect of vibrations on the process of compacting molds by compression is investigated. Results indicate that vibrations make it possible to obtain uniformity of density at compression pressures several times lower than those used in compacting without vibration.

Devkin, M.B. Investigation of Contact Areas of Rough Surfaces 131

The relationship between the actual contact area (consisting of elastic and plastic contact areas), the surface roughness, and the material properties of two surfaces in contact is investigated. Results indicate that the size of the actual contact area is considerably affected by the geometry of the surface.

Krasnenkin, M.P. Investigation of the Accuracy of Determining Gear by the Method of Crescent-shaped Indentations 143

An experimental investigation was made of the accuracy of determining metal wear by the indentation method, involving measurement of the length and calculation of the reduction of depth of a crescent-shaped recess cut into the metal surface. The method of investigation and the special instruments used are described.

Kabaynenko, A.F. Investigation of Lubricant Circulation in a Model of the Oil Bath of a Vertical-pivot Thrust Bearing Used in Large Hydraulic Turbines 155

Lubricant flow in the bath and between shoes of a thrust bearing (without cooling) was investigated by a thermoanemometric method. A testing machine, built for this purpose at the Hydrodynamic Friction Laboratory, Institut mashinovedeniya, AN SSSR (Institute of Machine Science, Academy of Sciences, USSR), is used. The results of the investigation are described.

Churkhadov, G.Kh. Investigation of Stresses in Frames With Plate-like Cross Beams 167

The author discusses an experimental and theoretical investigation of stresses in composite and solid frame structures. The non-linear distribution of stresses and strains are shown in diagrams.

KHURSHUDOV, G.Kh.

Investigating stresses in frames with plate-shaped cross bars.
Trudy Inst. mash. 1:167-182 '59. (MIRA 12:12)
(Structural frames)